MAY '59

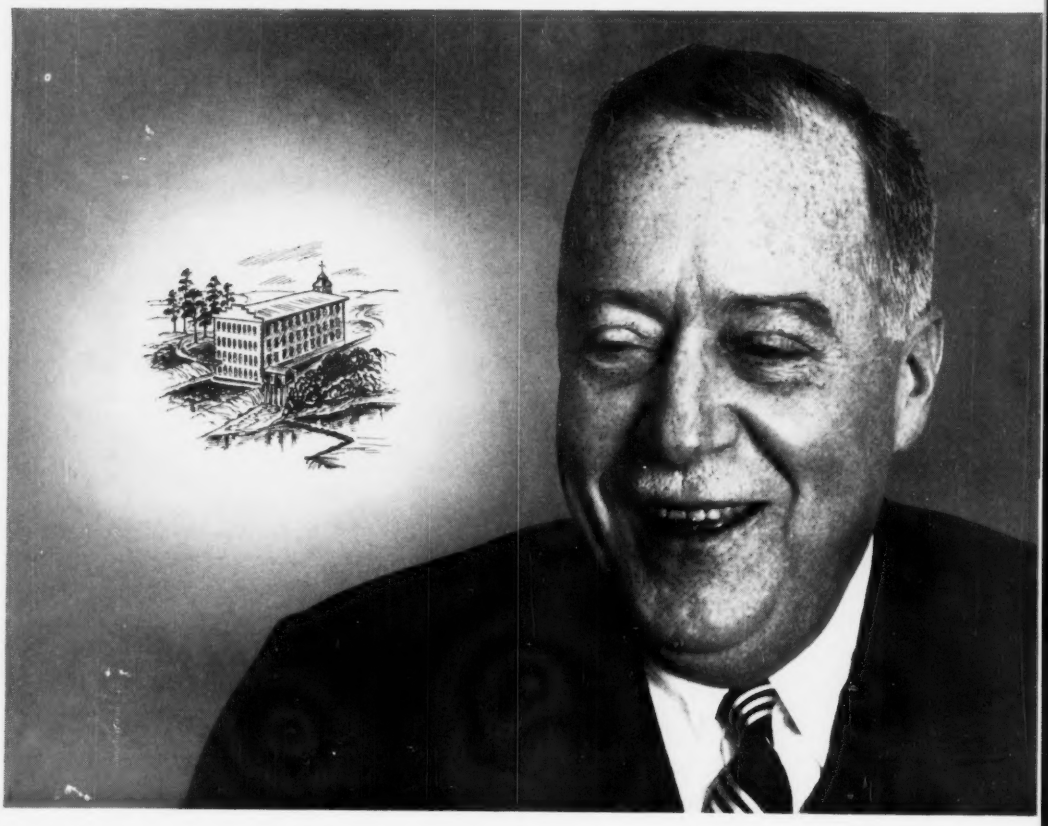
MODERN TEXTILES MAGAZINE

Specializing in Man-Made Fibers and Blends since 1925

FIBERS

FABRICS

FINISHES



Acme Spinning Co.'s J. HAROLD LINEBERGER finds yarn making a happy, zestful life - story page 20

THIS MONTH:

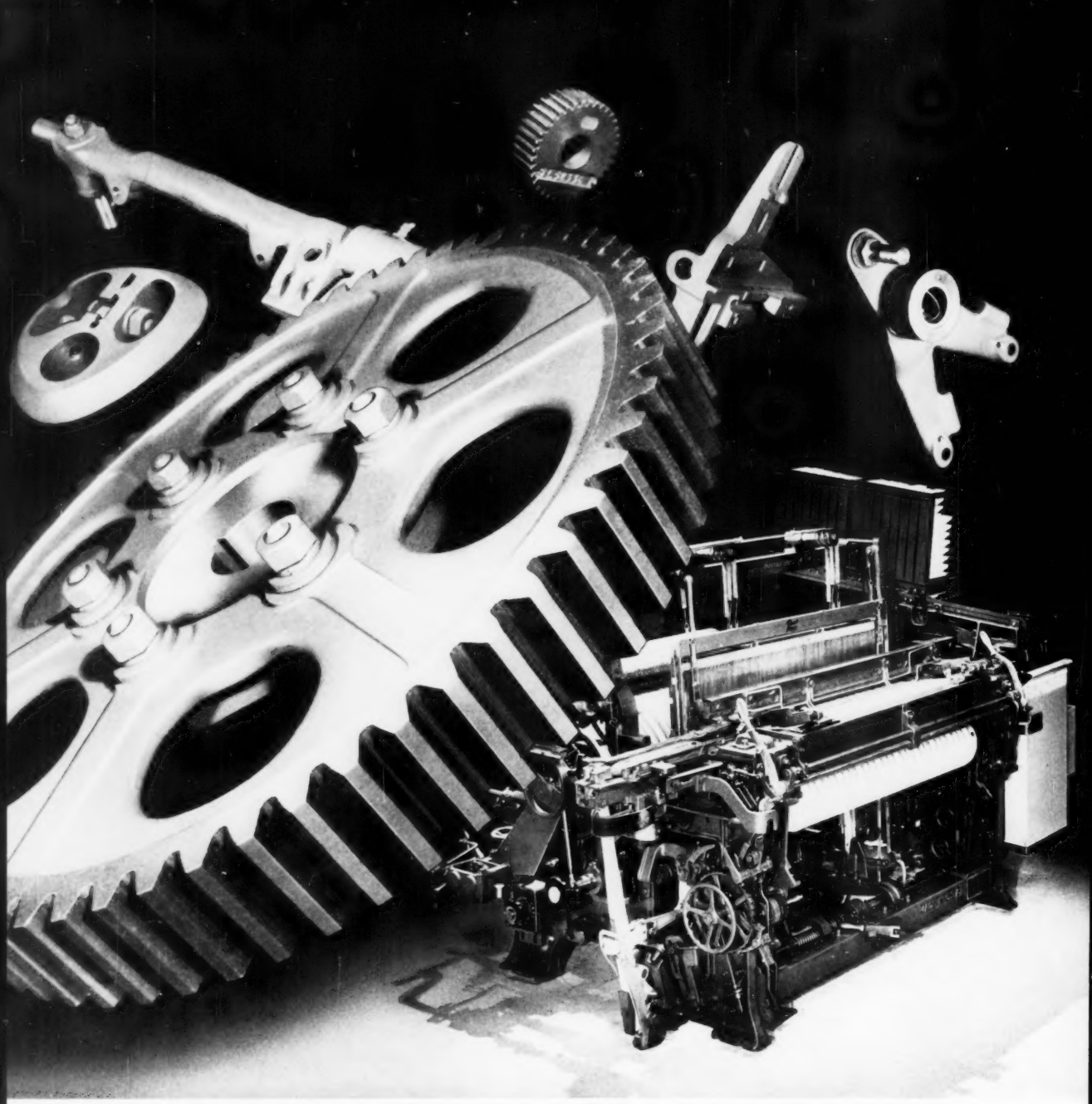
Reducing "machine interference"

Slasher sizing Dacron yarns

Faster hosiery finishing

Upgrading manmade fiber carpets

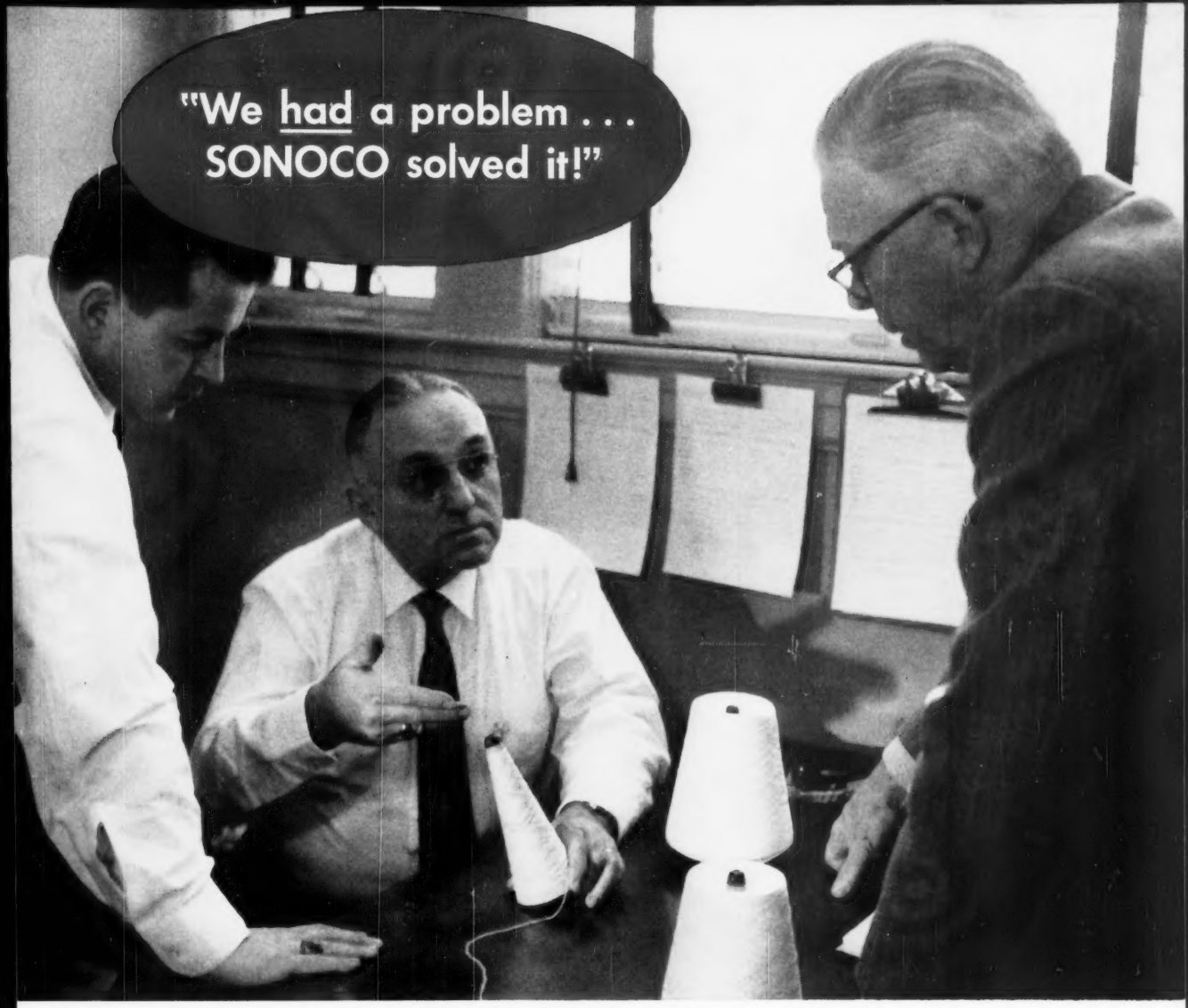
AND 11 MORE USEFUL ARTICLES AND TIMELY REPORTS



Each part is vital to loom efficiency. Constant research and development make yesteryear's equipment obsolete. That's why Draper Corporation continues to place more emphasis on product development and careful mill trial than any other loom builder in the world. For better weaving efficiency insist on new Draper looms and Draper repair parts. Your investment in <u>original</u> Draper products is your best guarantee of quality and performance.

DRAPER CORPORATION

HOPEDALE, MASS. • ATLANTA, GA. • GREENSBORO, N. C. • SPARTANBURG, S. C.



THE NEED: Cones for stretch and non-stretch bulk yarn.

Bulk or stretch yarns presented the textile industry with new packaging and production problems. A new type cone was required for packaging these processed yarns . . . a cone with a surface which would improve delivery and yarn transfer and with suitable colored tips to withstand special coning oils.

Sonoco technical and production "know-how" solved these problems fast. Special cone papers, and the application of Sonoco's previously developed cone tapers and surfaces — plus proper coatings for colored tips, are being used in the correct combinations to meet each mill's particular requirements.

Only Sonoco, with its modern research and production facilities could solve these problems with economical and efficient carriers. It is typical of countless cases where Sonoco leadership — based on 60 years' experience — has benefited the industry. You can depend on Sonoco!

sonoco
PAPER PRODUCTS

Our 60th year
1899 - 1959

SONOCO
Products for Textiles
SONOCO PRODUCTS COMPANY

Main Office—Hartsville, S. C. • Mystic, Conn. • Akron, Ind. • Lowell, Mass. • Phillipsburg, N. J. • Longview, Texas • Philadelphia, Pa. • La Puente, Cal. • Atlanta, Ga. • Granby, Quebec • Brantford, Ontario • Mexico, D. F.

MODERN
TEXTILES MAGAZINE

May, 1959 Vol. 40, No. 5

Modern Textiles Magazine
Established 1925

* * *

Published Monthly by
Rayon Publishing Corporation
303 Fifth Ave., New York 16, N. Y.
MUrray Hill 4-0455

* * *

Francis A. Adams ..... *Chairman of the Board*
Alfred H. McCollough ..... *President*
Harvey J. Williams ..... *Vice President*
Harries A. Mumma ..... *Treasurer*
Charles J. Costabell ..... *Secretary*

* * *

Alfred H. McCollough ..... *Publisher*
Jerome Campbell ..... *Editor*
Raymond W. Jacoby ..... *Dyeing & Fin. Editor*
H. George Janner ..... *Managing Editor*
Robert C. Shook ..... *Contributing Editor*
Joseph Fallat ..... *Art Direction*
Harvey J. Williams ..... *Business Manager*
William A. B. Davidson ..... *Business Representative*
Gordon B. Ewing ..... *Business Representative*
R. A. Lipscomb ..... *Business Representative*
Stanley A. Ehresman ..... *Circulation Manager*
I. A. Price ..... *Asst. Circulation Manager*

* * *

Subscription Rates: North and South America and U. S. Possessions, one year $5.00; all other countries, one year, $8.00. Postage prepaid by the publisher. Single copies (current issue), 60 cents.

BPA

Member of
Business Publications Audit of Circulation, Inc.

Entered as second-class matter at the Post Office, Manchester, N. H. Editorial and Circulation offices at 303 Fifth Avenue, New York 16, N. Y. Publication offices at 215 Canal Street, Manchester, N. H.

(Originally entered as second-class matter at the Post Office, New York, N. Y. August 20, 1925).

* * *

Contents copyright 1959 by Rayon Publishing Corporation. All rights reserved. Articles may be reprinted with the written permission of the publisher, if credit is given to Modern Textiles Magazine.

* Registered U.S. Pat. Office.

American Association of Textile Chemists and Colorists ..... Lowell Techn. Inst., Lowell, Mass.
American Association for Textile Technology, Inc. ..... 100 W. 55th St., New York
American Cotton Manufacturers Institute, Inc. ..... 1501 Johnston Bldg., Charlotte, N. C.
American Cotton Manufacturers Institute, Inc. Man-Made Fibers and Silk Division ..... 10 East 40th St., New York
American Rayon Institute ..... 350 Fifth Avenue, New York
Man-Made Fiber Producers Association ..... 350 Fifth Ave., New York
Silk and Rayon Printers and Dyers Ass'n of America, Inc. ..... 1450 Broadway, New York
Synthetic Organic Chemical Manufacturers Association ..... 41 E. 42nd St., New York
Textile Distributors Institute, Inc. ..... 469 Seventh Ave., New York

CONTENTS

Increase Depreciation Allowances Now! 19

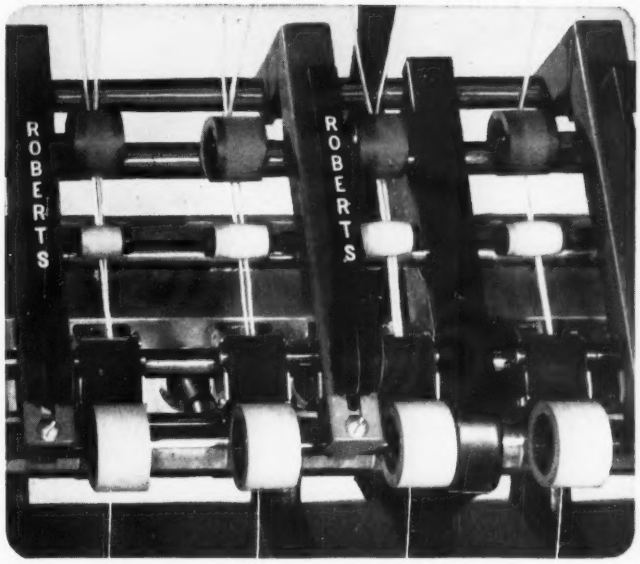
The Happy Vocation of Harold Lineberger 20
by Jerome Campbell
Improved Instruments at TRI Meeting 22
New Machine Cuts Finishing Costs Sharply 24
Slasher Sizing Dacron Yarns 26
by H. L. Sandine & L. M. Anderson
U. S. Manmade Fiber Output 1958 30
New, Faster Lace Knitter 32
Reducing Machine Interference 34
by Thomas F. O'Connor
British Device Cuts Card Room Fly 39
by F. C. Livingstone

What Consumers Want in Manmade Fiber Carpets 45
by Thomas W. Bresnahan
Some Facts about Carpet Fibers 47
by William Reynolds

New Products 37, 43
Worldwide Textile News 44
Dyeing Notes 49
New Fabrics 50
TDI News and Comment 51
Yarn Prices 52
Textile Newsbriefs 53
Calendar of Coming Events 70
Advertisers Index 70

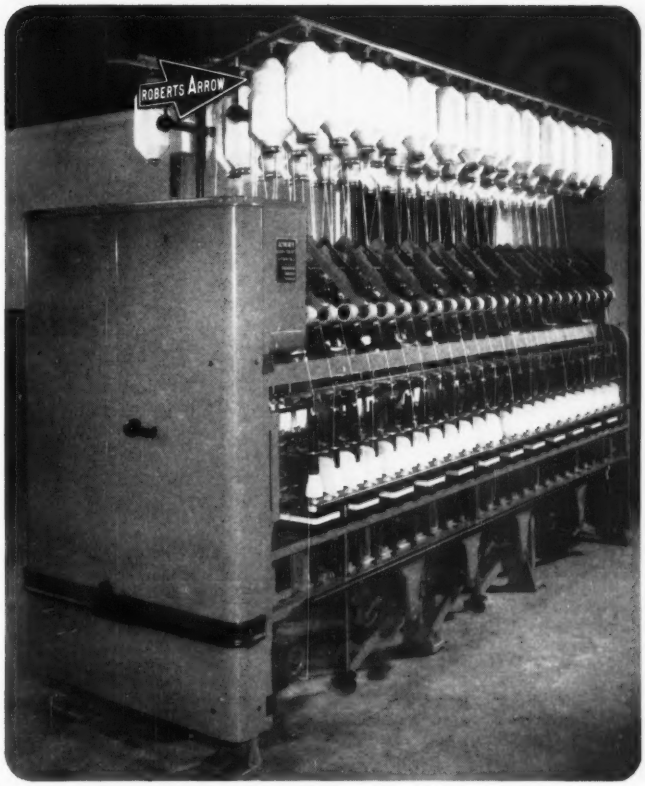
ROBERTS ARROW *LONG FIBER* SPINNING

- Any Fiber or Blend Synthetic or Natural
- Any Staple Length From 1½ to 8 Inches
- No Roll Setting Changes Needed at Any Time
- All Ball Bearing Construction For Smooth Operation



WITH ROBERTS *PermaSet* DRAFTING

ROBERTS ARROW



WM-2 ARROW *ShortFlo*

Rugged Chassis with Ball Bearings Throughout

Unitized Sectional Construction

Four-Roll Double Apron Drafting System

For Long-Staple Spinning, 100% or Blended

Drafts: 20 to 25 for Wool and Blends
25 to 50 for Synthetics and Blends

Front Roll Pressures from 90 to 120 pounds

UnitVac Power Suction Cleaning with Individual Removable Flutes

Roberts AeroCreel Handles Large-Package Roving

Simplified Reverse Twist Arrangement

Completely Adjustable Draft, Lay, and Twist Constants

One Master Set of Gears for All Changes

Actual mill tests have proved that the ARROW WM-2 Worsted Frame gives higher quality yarns with fewer ends down and more even running at higher drafts and higher front-roll and spindle speeds.

ROBERTS COMPANY
SANFORD, NORTH CAROLINA

The Laurel Leaf

BUSINESS MAGAZINE EDITION

FOR METALLIC YARNS
FOR ELASTIC YARNS
LAUREL RUXITE RX

If you are not getting complete satisfaction from your present coning oil, we suggest that you get acquainted with this popular member of the Laurel family of quality products.

Laurel RUXITE RK is a light viscosity, clear, non-staining coning lubricant, blended especially to provide the highest lubrication without the disadvantages of high oil pickup.

Especially suited for use with metallic and elastic yarns, it is also being used with excellent results on all synthetic yarns, as well as on natural yarns and blends. The lubricants in Laurel RUXITE RK are chosen so as to minimize any tendency to tarnish metal or to attack laminating adhesives. RUXITE RK is finding increasingly wider acceptance for coning tricot yarns and oiling filling yarns for ribbons and other narrow fabrics. This is especially so where subsequent finishing is not desired. It is also used on novelty yarns where its light body helps it spread uniformly throughout the yarn.

Laurel RUXITE RK has great versatility from an application standpoint, too. The most satisfactory method is from oiling attachments on cone winders, but it may also be applied to spraying or by soaking, followed by subsequent extraction of any excess oil.

Why not explore the plus-values of this Laurel quality product today? A letter or postcard request will have a sample and more information on its way to you by return mail.

Laurel Brand
50 YEARS OF SERVICE TO INDUSTRY 1909-1959

Laurel SOAP MANUFACTURING CO., INC.
TIOGA, THOMPSON & ALMOND STS., PHILA. 34, PA.

Warehouses: Paterson, N. J. Chattanooga, Tenn. Charlotte, N. C. Greenville, S. C.

Huffines on Roberts' Board

Robert L. Huffines, Jr., has been elected to the board of directors of Roberts Co., manufacturers of textile spinning machinery, it was announced by Robert E. Pomeranz, president. Huffines served as president of Burlington Mills Corp. from 1947 to 1953, and later was president of Textron, Inc., and its subsidiary Amerotron Co. Other members of Roberts' board are: Robert E. Pomeranz, Jonathan N. Pomeranz, Warren R. Williams, James A. Overton, David E. Henderson, and Orris T. Sloan.

Roberts recently announced receipt of a contract of about $250,000 from Calvine Mills, Inc., for modernized spinning equipment, and another contract of more than $200,000 from Shelby Cotton Mills for 15 of Roberts' new Arrow M-1 spinning frames. Roberts Co. de Mexico, in Puebla Pue, Mexico, has been appointed by American MonoRail Co. as its dealer in Mexico for American MonoRail products used in that country's cotton mill and textile industry.

Urethane Foam Outlook

An estimated 45 million pounds of flexible urethane foam is expected to be consumed this year, according to Allied Chemical's National Aniline Division. Neal M. Draper, assistant to the division president, said "an excellent future is forecast for the sale of urethane materials with the furniture and automotive industries" this year. Bedding manufacturers also are expected to increase their use of foam this year, while rigid urethane foams are beginning to find wide use as insulation in home building, refrigerators and freezers. Raw materials for urethane foam are reported in good supply. *For further information write the editors.*

Extend Terylene Patent

Calico Printers Association has been granted by the British Comptroller of Patents a five-year extension in the U.K. of its patents for Terylene, registered in 1942 and due to expire last year. The application was made on the grounds that Calico Printers suffered loss and damage because of wartime conditions. Supporting the application was Imperial Chemical Industries, Ltd., which holds a license to exploit the patent in the U.K. Last year, Imperial Chemicals joined with Celanese Corp. of America to form a new company, Fiber Industries, Inc., for the purpose of manufacturing a polyester fiber, tradenamed Teron, in the United States. Fiber Industries is currently building a plant in Shelby, N. C.

"Multi End" Texturizing Shown

A demonstration of a new development whereby more than one end of yarn can be texturized by the Taslan process was held in New York City recently by the Du Pont Co. The Taslan process adds bulk and texture to filament yarns by treating them with compressed air. The Du Pont demonstration also included an exhibit of fabrics, garments and other textile products made with Taslan yarn.

At the demonstration, Du Pont's Henry C. Froehling stated that within five years textured yarns have built up a 40 to 50 million pound market. Of this total, he said, Taslan yarns accounted for about 25%. He predicted that production of textured yarns in the next five years would reach the 100 million pound mark.

A feature of the meeting was a working model of an Acme Single Position Texturizer made by U.S. Textile Machine Co., Scranton, Pa. The texturizing machine, which uses the Taslan air jet method, was shown actually processing yarns. *For further information about Taslan yarns or the Acme texturizing machine readers are invited to write the editors.*

MILCO goes high speed

10,000 racks of jersey knit fabric at 800 courses per minute . . . without a defect!

Milco Undergarment Co., Inc., Bloomsburg, Pa., has a battery of 12 high-speed "READING" Tricot Machines, knitting plain jersey fabric for their line of Columbia Maid panties, slips, half slips, and nightgowns. Check these results:

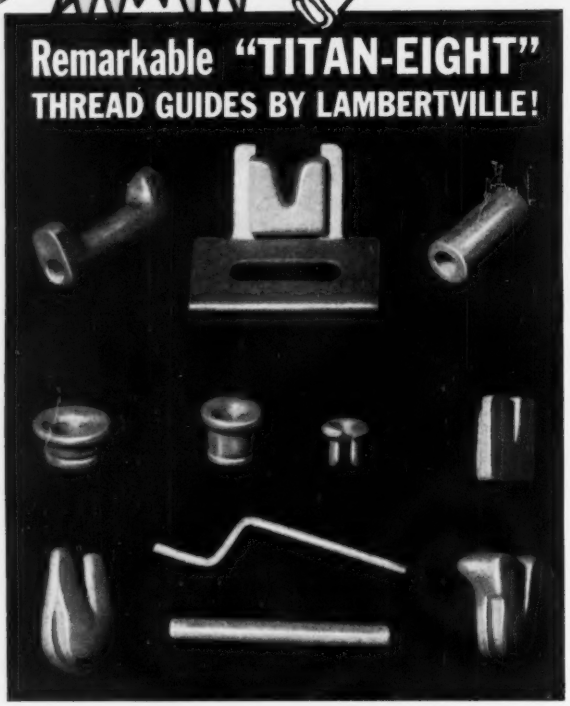
- Vibration-free operation at 800 courses per minute, 24 hours a day, seven days a week.
- Constant runner length with high degree of uniformity in fabric yield. Tension-free let-off motion proved in two years of production runs. Cloth yield is held within 5 points.
- Up to 10,000 racks of 55 denier, 28 gauge acetate without a defect.
- Up to 500 racks of 32 gauge nylon without a defect.
- No appreciable guide wear, even on the first machine that went into operation in December, 1956.

"READING" Tricot Machines accommodate warps up to 32" diameter. Knitting width, 168". 2-bar convertible to 3-bar operation. See the "READING" Tricot Machine in operation or let us send details.

Wire Products Division
TEXTILE MACHINE WORKS • READING • PENNA.
Builders of Textile Machinery Since 1900

The "READING" *Tricot Machine*

Remarkable "TITAN-EIGHT"
THREAD GUIDES BY LAMBERTVILLE!



RADICAL NEW METHOD OF PROCESSING MEANS

LOWER COST!
FASTER DELIVERY!

Now, for the first time . . . thread guides of "*Titan-Eight*"—the smoothest, most durable material available—are being offered at low cost with fast delivery! A completely new method of processing, developed by Lambertville, makes this possible. Any porcelain shape can be duplicated in "*Titan-Eight*". Send for free samples, for comparison in quality and price with your present guides. (Please specify shapes).

TITAN EIGHT

Lambertville Ceramic
AND MANUFACTURING COMPANY

LAMBERTVILLE, NEW JERSEY

LAMBERTVILLE: YOUR GUIDE TO BETTER OPERATIONS!

John E. Bassill Dies

John E. Bassill, widely regarded as one of the leaders and founders of the American manmade fibers industry, died suddenly on April 17. His retirement as president of American Enka Corp., announced earlier this year, was to have been effective on April 22.

Born in Norristown, Pa., Bassill entered the rayon industry in 1920 as a clerk in the office of Tubize

Artificial Silk Co. He became president of Tubize in 1929, having earned his rise to the position on the basis of ability and hard work, according to those who knew him.

Shortly after Tubize was merged with Celanese in 1946, Bassill left to become president of American Bemberg Corp., and its subsidiary, North American Rayon Corp. In 1950, he became president of American Enka.

A full-length article on Bassill's career, entitled "The rayon industry's 'Mr. President'," appeared in the April, 1957 issue of this magazine.

New Cupioni Yarn Soon

A new type of Cupioni rayon yarn will be introduced this fall by American Bemberg. The new yarn is described as a soft spun Cupioni with a more open filament and thus a softer hand than earlier forms of this slubbed yarn. One of its first appearances will be in a combination with acetate in a fabric brought out by Fabrex for women's and men's wear.

Meanwhile sales of Cupioni yarn have reached a new record according to American Bemberg. Although production facilities are running at full capacity, the company announced, Cupioni is still in short supply.

Growth in demand for Cupioni, American Bemberg believes, is due to consumer preference for imported and textured fabrics such as Douppioni silks from Italy and Japan. Cupioni is said to offer the slubbed texture and silken feel of imported silks with the added practical features of washability, crease-resistance, color fastness and certified wash-wear performance if desired.

Converters are reported to be combining Cupioni not only with cotton but with silk, ordinary rayon, Dacron polyester fiber and Arnel triacetate fiber for draperies, curtains, upholstery as well as in garment fabrics.

MILLIONS UPON MILLIONS of tags and labels in garments and on piece goods feature the name, Cupioni.

But... the use of the name is a privilege, not a right. American Bemberg consents to the use of Cupioni upon two conditions:

1. The merchandise must meet the required minimum specifications for Cupioni — as delineated in our "Cupioni Specifications" booklet, furnished free of charge.
2. The name must be used properly and identified as a registered trade-mark of American Bemberg — as described in our free booklet: "The Proper Way to Use Our Trade-Mark, Cupioni."

Before featuring Cupioni in tags, labels, or advertising, write for the two free booklets . . . be sure you are complying with the rules. **Unauthorized or illegal usage by fabric manufacturers, cutters, or tag manufacturers will be vigorously opposed.**

Bemberg®

CUPIONI IS AMERICAN BEMBERG'S REGISTERED TRADE MARK FOR CUPRAMMONIUM RAYON YARN

AMERICAN BEMBERG • Main Office: 261 Fifth Avenue, New York 16, N.Y. Plant: Elizabethton, Tennessee.

No. 10 in a series—how your Du Pont salesman is backed by many sales-building activities, including Fiber Research, Technical Service, Fabric Development and Merchandising.

At Du Pont, electronic brains help unravel a knotty sweater problem

It looked as though several hundred thousand different sweaters of "Orlon"* acrylic fiber would have to be made and scientifically tested to find the best *combination* of hand and performance. And the job would take many years.

But Du Pont researchers didn't want to wait that long. They selected the important yarn and fabric construction variables and translated them into a form that could be handled by a giant electronic computer. It clicked off calculations at 22,000 per minute! And in six hours the Du Pont computer provided data on optimum constructions. In the photo at right, Orv Wetmore, a Textile Fibers research manager, shows a sweater made by the new technology to two of the engineers who analyzed the electronic data which made it possible.

Electronic computers are only part of the vast system of technical and scientific apparatus used by Du Pont to solve problems for the textile industry. Continuous research by hundreds of fiber technologists, backed up by teams of chemists, physicists, and other scientists, is devoted to the development, manufacture, and improvement of Du Pont fibers. Knowledge gained through this research is constantly being shared with the textile industry.

It has long been Du Pont's belief that the market for its fibers can best be advanced by providing helpful assistance to all levels of the textile industry. Through your Du Pont salesman you, as a customer, have ready access to a range of technical and merchandising information unique in the textile industry.

From raw fibers to retail sales
... Du Pont builds profits for you

PRODUCT and PROCESS NOTES FROM DU PONT

Stabilizing Warps of "Dacron" Polyester Fiber on the Slasher** — A practical method has been developed for stabilizing "Dacron" filament warp yarns, allowing the weaving of loom-finished fabrics. Warps having an acceptable shrinkage level (2 per cent or less when subjected to ironing temperatures of 325°F.) can be produced during slasher sizing by passing the warp sheet over a flat, heated surface prior to entering the size box. The instrument used in the operation is an electrically heated chrome-surfaced steel plate. Fabrics produced with these warps retain their stability through normal laundering or drycleaning processes. This development is expected to offer new opportunities to weavers of loom-finished fabrics, such as bedspreads, draperies, and casements.

"Ondulé" Rayon — "Ondulé", Du Pont's new continuous-filament rayon yarn containing randomly spaced, entangled slubs, is making fashion news in dresswear, suitings, draperies, curtains, and casements. It is now available in 150, 250, 450, 1,100 and 2,200 deniers. The unusual slub characteristics of "Ondulé" impart to fabrics a distinctive texture which resembles that obtained with certain types of silk. It is expected that this new yarn will also become important in men's sport shirts and neckwear.

Type 707 Nylon — Du Pont has announced a new nylon yarn designed and developed for cordage — Type 707 Nylon. Ropes made from this new nylon have 16% higher breaking strength and three times greater resistance to internal abrasion than regular nylon.

The new ropes are not weakened by rot or mildew and have exceptional resistance to wear, plus the light weight and easy-handling characteristics of conventional nylon lines.

*"Orlon" is Du Pont's registered trademark for its acrylic fiber.
**"Dacron" is Du Pont's registered trademark for its polyester fiber.

Enjoy the "Du Pont Show of the Month" on CBS-TV

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

superior light fastness...

DYSYN 427-A

NON-TOXIC CARRIER
for ARNEL❶... DACRON❷
...and BLENDS

does NOT contain

- any toxic phenols such as o-phenyl phenol or derivatives.
- any toxic chlorinated products such as trichlorobenzene.

CHECK THESE ADVANTAGES OVER PRESENT CARRIERS

- Far better light fastness retention on many colors than present carriers.
- Non-toxic in mill handling. Also, no toxic carry-over on the dyed goods
- Excellent color value on Arnel❶ and blends with viscose, cotton and synthetics.
- Will not deluster acetate. No spotting on filament Dacron❷ goods.
- Active throughout entire dyeing cycle permitting dyestuff additions at any time.
- Forms a spontaneous, homogeneous emulsion in water. Active ingredient does not separate or sink to the bottom of dye beck to form blotches or spots.
- Can be used with recommended dispersed dyes for Arnel❶ or Dacron.❷

❶ — Regd. T.M. Celanese Corp. Triacetate fibre

❷ — Regd. T.M. DuPont Polyester fibre

Samples & Literature on Request

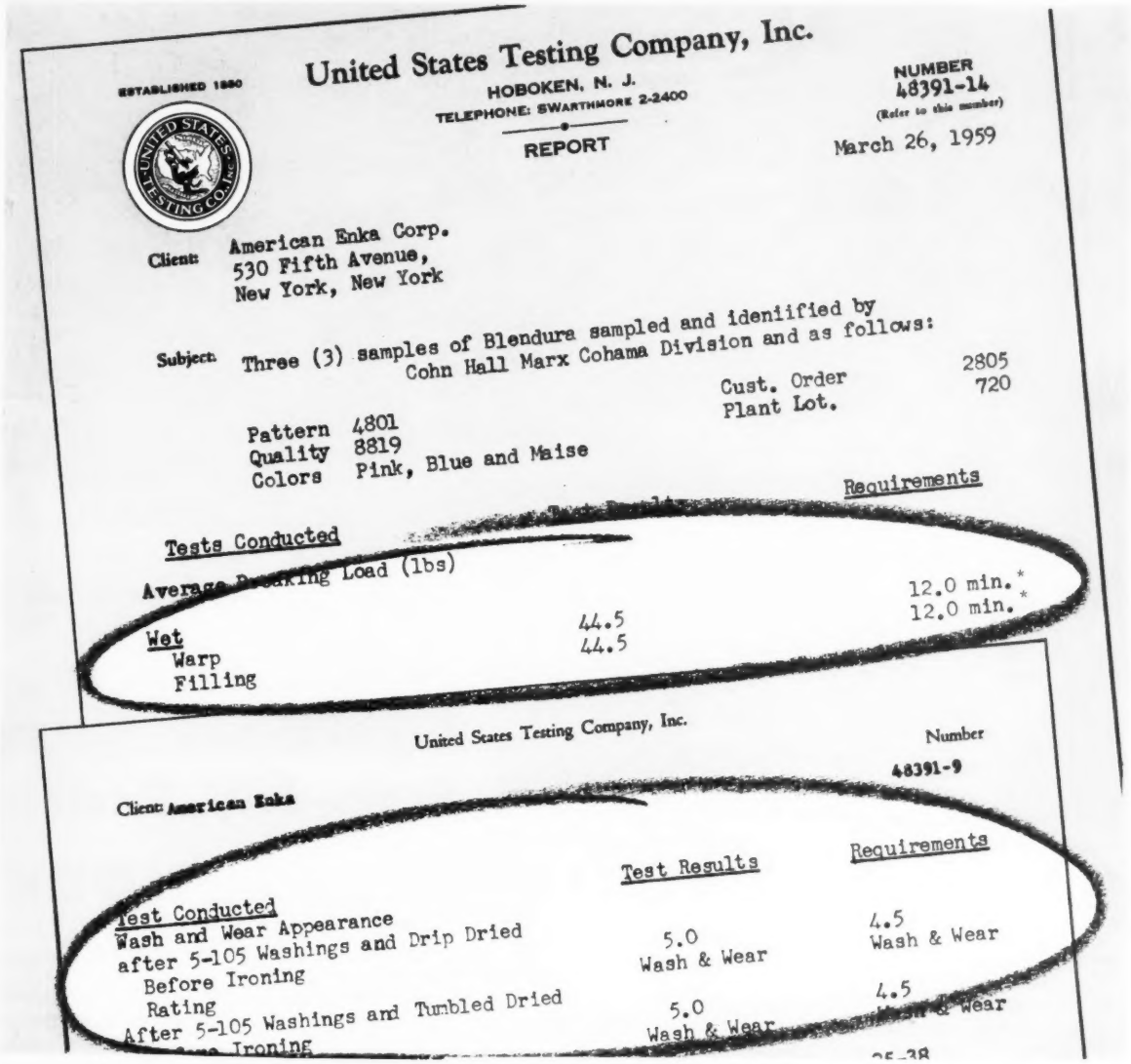
Apex chemical co., inc.

Manufacturers of Chemicals
Since 1900

200 SOUTH FIRST STREET • ELIZABETHPORT 1, N. J.
Telephone: ELizabeth 4-5420

BLENDURA*

The approved cotton-rayon blend for wash and wear



United States Testing Company, Inc.
ESTABLISHED 1880
HOBOKEN, N. J.
TELEPHONE: SWARTHMORE 2-2400
REPORT
NUMBER 48391-14
(Refer to this number)
March 26, 1959

Client: American Enka Corp.
530 Fifth Avenue,
New York, New York

Subject: Three (3) samples of Blendura sampled and identified by Cohn Hall Marx Cohama Division and as follows:
Cust. Order 2805
Plant Lot. 720

Pattern 4801
Quality 8819
Colors Pink, Blue and Maise

Tests Conducted		Requirements
Average Breaking Load (lbs)		
Wet		12.0 min.*
Warp	44.5	12.0 min.*
Filling	44.5	

United States Testing Company, Inc.
Number 48391-9

Client: American Enka

Test Conducted	Test Results	Requirements
Wash and Wear Appearance after 5-105 Washings and Drip Dried	5.0 Wash & Wear	4.5 Wash & Wear
Before Ironing Rating		
After 5-105 Washings and Tumbled Dried	5.0 Wash & Wear	4.5 & Wear
Ironing		

Here are recent independent test results —typical of the tests made on *every* finished run of Blendura cotton-rayon blends—on Cohama's Fall line of Blendura wash-and-wear, with little care, prints.

These tests, made by U. S. Testing Co., Inc., prove conclusively that Blendura cotton fabrics enriched with Enka rayon have superior wet filling strength and excellent wash-and-wear ratings.

Blendura is tested and approved by U. S. Testing. It is the *approved* cotton-rayon blend. Important Cohama customers, currently featuring Blendura prints, include such names as Jonathan Logan (high-fashion junior dresses), N. Farah & Sons (famous Loungee housecoats) and Rosenau Brothers, Inc., (Cinderella and Bonnie Blair dresses for children and sub-teens).

See for yourself. Let D. Crawford Smith show you Blendura's record of satisfaction for wash-and-wear without care. Call him at OXford 7-6141, Extension 35, or contact the Enka sales office nearest you.

**Blendura is Enka's trademark for cotton-rayon blends certified by United States Testing Co., Inc., for blend level and performance.*

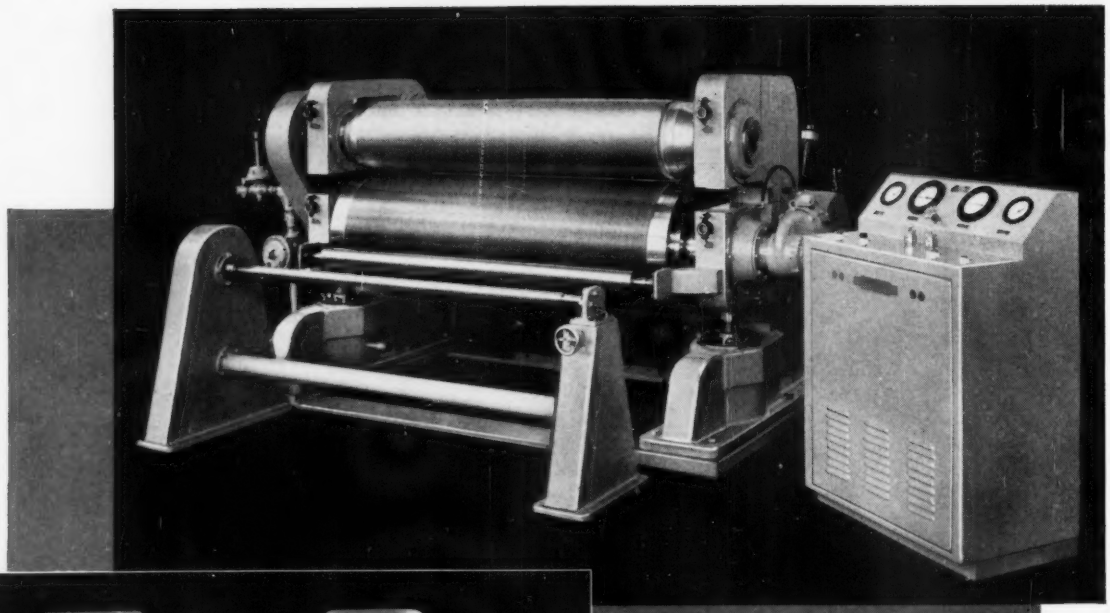
SO MANY GOOD THINGS BEGIN WITH

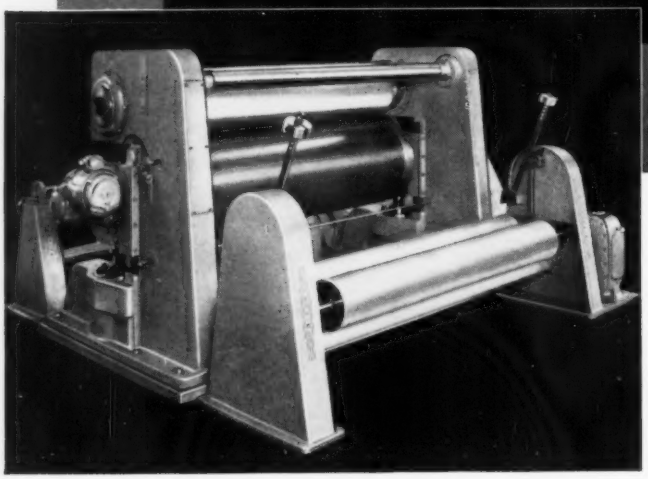
ENKA

AMERICAN ENKA CORPORATION
530 FIFTH AVENUE, NEW YORK 36, N. Y.
New York · Chattanooga · Greensboro · Providence

PRODUCERS OF RAYON
NYLON · YARNS · FIBER

* Amer. Standards Assn. L22/340 Performance Requirements.





Outstanding Features

of this

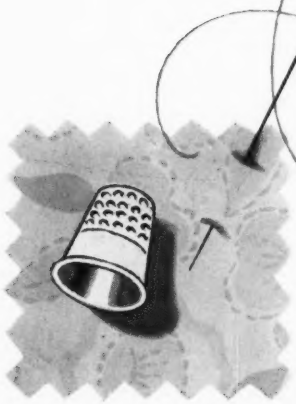
PERKINS new design heavy-duty, 2-roll

TRICOT SCHREINER CALENDER

- Steel frames mounted on heavy steel base plate, facilitating installation in mill
- Top and bottom rolls equipped with self-aligning roller bearings mounted in heavy steel housings equipped with automatic lubrication of all bearings
- Special forged steel top roll of much larger diameter than regularly used in existing Schreiner Calenders
- All oil circulating lines and hydraulic oil lines installed inside of calender frames
- Normally requires less space than existing calenders
- Special hydraulic pressure unit with built-in controls and pressure gauges for ease of regulating pressures on each side of calender
- Easy installation and removal of calender rolls
- Adjustable let-off unit to control tension of cloth by air pressure — also special constant tension wind-up unit equipped with constant tension motor and electric controls
- New type gas heating unit for heating the top steel roll — this unit has constant temperature control by direct contact with one end of roll face
- Perkins special off-nip drive for bottom roll with built-in over-running clutch to keep bottom roll rotating when pressure is released or rolls separated — this unit is electrically operated by automatic control

B. F. PERKINS & SON, INC.

HOLYOKE, MASSACHUSETTS



. . . Tailored Especially

for Soaping

PROCION

Dyed or Printed Fabrics

SYNTHRAPOL SP

A thorough soaping of Procion dyed or printed goods is especially important if the high wetfastness ratings characteristic of these dyes are to be achieved. Colored by-products, formed by secondary reactions with water in the dyeing or printing operation, and residual alkali, must be removed.

SYNTHRAPOL SP provides thorough soaping and permits a wide choice of times and temperatures. If you are using Procion dyes, or Ahcovat or azoic dyes (Synthrapol SP is recommended for all three), you should be using SYNTHRAPOL SP. Ask for a sample and more information.

Synthrapol • Procion • Ahcovat
Registered Trade Marks

Procion dyestuffs and the processes for their use and application to textiles are the subject of patent applications in the U.S.A.

Quality AHCO PRODUCTS Integrity

ARNOLD, HOFFMAN & CO., INCORPORATED

55 Canal Street, Providence, Rhode Island • Est. 1815

A Subsidiary of Imperial Chemical Industries Limited, England

West Coast Representative: Chemical Manufacturing Company, Incorporated of California

ICI

39-9

A SKILLED HAND IN CHEMISTRY . . . AT WORK FOR YOU

For Best Quality Fabrics

Size Nylon Warps with

NOPCOSIZE® N AND NOPCOLUBE® 55

You'll be able to see the difference in quality at a glance, because this unbeatable pair gives nylon fabrics a dramatic new look. They assure:

- *Exceptionally flexible, well-lubricated warp*
- *Superior split at higher slashing speeds*
- *Absolute elimination of costly top waxing*

Let this hardworking Nopco team go to work for you. We'll supply materials for a trial run in your operation . . . see for yourself. Call or write our Textile Chemical Department.

VITAL INGREDIENTS
FOR VITAL INDUSTRIES

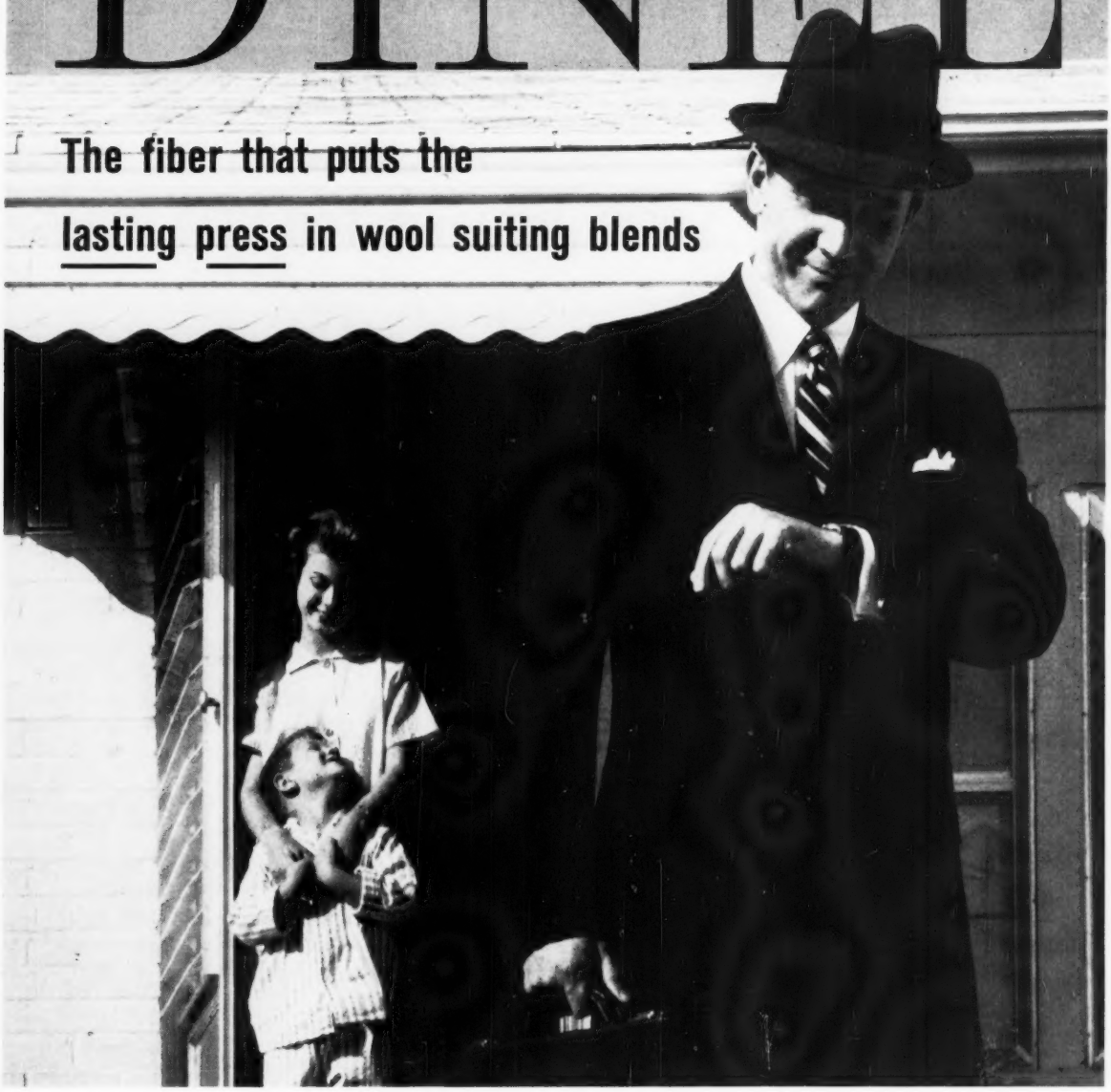
NOPCO®

NOPCO CHEMICAL COMPANY
60 Park Place, Newark, N.J.

Plants: Harrison, N.J. • Richmond, Calif. • Cedartown, Ga. • London, Canada

DYNEL

The fiber that puts the lasting press in wool suiting blends



DYNEL is the fiber of plus performance in today's woolen blends. Lasting press retention—a wool-DYNEL blend can be heat set into a permanent press. With DYNEL you can weave light-weight, strong suitings with all the rich appearance, fine hand and durability of wool plus the press retention of DYNEL. Fabrics of wool and DYNEL are already producing record suit business for manufacturers like The House of Worsted Tex and Botany 500. There's room for more fabrics—more suit volume—more profits . . . room for *you* in the picture. Call or write us for details.

DYNEL • A UNION CARBIDE BRAND TEXTILE FIBER

Textile Fibers Department, Union Carbide Chemicals Company, Division of Union Carbide Corporation, 100 East 42nd Street, New York 17, New York. Offices in Boston, Mass. at 300 First Ave., Needham Heights; Charlotte, N. C. at 1213 Liberty Life Bldg.; Montreal, Quebec; Toronto, Ontario.

"Union Carbide" is a registered trade-mark of Union Carbide Corporation

caprolan® TEXTURED YARN SEMINAR

THE NYLON FIBER BY ALLIED CHEMICAL

NEW METHODS FOR NEW YARNS

Textured Caprolan filament yarns are different—and what a wonderful difference!

You'll find it easy to adapt your present methods to the new yarns, with a few minor adjustments. Here are some of the critical areas that should be given special attention for maximum success:

- **creeling methods**
- **tensions and tensioning devices**
- **thread guides and yarn carriers**
- **cutting edges**
- **dyeing and finishing**

Remember, textured filament yarns are precision yarns. You'll get best results if you keep this important fact in mind:

Textured filament yarns and spun yarns are not the same

We'll be happy to get you off to a fine start in the use of Textured Caprolan® in your product lines. Our technical service, end-use development and fiber application staffs are always available to help you.

Fiber Sales & Service Allied Chemical *National Aniline Division*

261 Madison Avenue, New York 16, N. Y.

#8 of a series . . .

MODERN TEXTILES
Magazine

Publisher's Viewpoint

Increase depreciation allowances now!

The urgent need to bring about a broadscale re-equipping of the country's textile industry with the new, better machinery now abundantly available has been stressed repeatedly by thoughtful persons in virtually all sections of textile manufacturing. According to estimates of the American Textile Machinery Association, based on a conservative study, as much as one-half the country's spindles and looms are more than 27 years old.

In fact, it is reported by the Association, as a result of its surveys, that the obsolescence of textile equipment is about 70%—one of the worst obsolescence rates of all American industries.

In startling contrast to the widespread use throughout the textile industry of aged, uneconomic and obsolete equipment is the existence of new machinery for virtually all phases of textile manufacturing. Developed in recent years by the painstaking efforts of American machine builders, these new machines are rugged and highly efficient; they are capable of delivering, at greatly lowered cost, improved yarns and fabrics. They are, in fact, generally recognized as the best in the world.

But while our textile machine builders have lead the world in the development of new and extraordinarily improved machines, use of this new equipment by American mills has lagged sadly. Between 1947 and the present, expenditures for new plants and equipment by American textile manufacturers dropped from $510 million to $252 million a year—a decline of more than 50%.

One of the major causes for the failure of American mills to re-equip themselves with the more productive machinery that has been made available is the present unrealistic depreciation allowances for tax purposes fixed by the Federal Government.

Perhaps the most succinct statement of the crisis of obsolescence of equipment in the textile industry is found in the recently published report of the special subcommittee of the Senate Committee on Interstate and Foreign Commerce, popularly known as the Pastore report. In its recommendations, the subcommittee says:

"Depreciation rates now contained in Bulletin F of the Internal Revenue Service are obsolete. These rates are based on the assumption that textile machinery is operated on an average of 2,000 hours per year. With three-shift operations, much textile equipment in this country is operated at 6,000 hours per year, and the useful life of such equipment is correspondingly shortened. The current, longterm depreciation rates are hampering investment in an industry which must step up its modernization program if it is to remain viable. We recommend that at the earliest opportunity the Internal Revenue Service publish a revised schedule of depreciation rates taking into account current industry practices which would permit a more rapid writeoff of new equipment for tax purposes."

Other Countries Are Wiser

This publication joins the leading spokesmen for the textile industry—from its fabric manufacturing side as well as its machinery manufacturing side—in endorsing the recommendations of the subcommittee.

In hearings before Congress, U. S. depreciation rules have been called "the most antiquated of all industrial nations." West Germany, for example, permits 60% of income producing property to be written off in the first two years. Canada, Sweden and many other countries have depreciation rates similarly based on the realities of modern industrial investment needs.

It is high time then that the United States tax laws be brought into harmony with the realities of today's industrial world. If effective relief in depreciation allowances is not soon granted to the American textile industry, our whole economy, including our national defense, will suffer—perhaps irreparably.

A. H. McCullough

The head man at Acme Spinning finds yarn manufacturing zestful, demanding and tremendously satisfying

The happy vocation of Harold Lineberger

by Jerome Campbell,
EDITOR, MODERN TEXTILES MAGAZINE

J. HAROLD LINEBERGER, the boss of Acme Spinning Co. in Belmont, North Carolina, is a textile man who frankly and wholeheartedly loves his work. Being head man at Acme, a medium-sized mill that produces high quality combed cotton yarns for the knitting and weaving trades, is for him an absorbing and richly diversified way of life. It keeps him busy physically, mentally and spiritually: it is a job that is at once demanding and richly rewarding. His love of textile manufacturing and his complete dedication to it is what makes Harold Lineberger a happy, a cheerful and a friendly man.

With all his wholehearted absorption in his work, Lineberger is nevertheless an unhurried man, a man who always has time to talk to his friends and his employees as if he had nothing else in the world to do. One of the reasons for his great satisfaction in his work is that Acme Spinning Co. has not grown beyond the point where Lineberger as head man (his formal title is treasurer) is cut off from deep involvement in virtually all essential aspects of day-to-day mill management.

On any business morning, Lineberger in his pleasant office on Route 29 in Belmont halfway between Charlotte and Gastonia, will pick up the phone to call a customer in Philadelphia and in a few minutes' pleasant talk sell a sizable poundage of yarn; he will take a call from California and, after a little gentlemanly bargaining, buy a few hundred bales of cotton from a grower in the San Joaquin Valley. In another call, he will fix the hour for a meeting later in the day of the board of trustees of the North Carolina Textile Vocational School up the road a few miles from his office.

Lineberger's voluntary service as chairman of the school's trustees is only one of his present active contributions to education in the textile industry and in his community. Among others are his interest in the University of North Carolina from which he took his A. B. degree in 1928; his work for N. C. State College School of Textiles at Raleigh where there is a Lineberger professorship in yarn manufacturing; his service as chairman of the board of advisors of Belmont Abbey College whose grounds adjoin his own home in Belmont; and his devoted work on the board of trustees of the Lutheran Southern Theological Seminary in Columbia.

The Lineberger involvement in textiles began with Harold Lineberger's grandfather, Caleb J. Lineberger, an enterprising Gaston County man who in 1840 de-

(Continued on Page 41)

Geigy Dyestuffs Division of Geigy Chemical Corporation
Saw Mill River Road, Ardsley, New York

Shown at Textile Research Institute's exhibit

IMPROVED INSTRUMENTS

mean better yarns, fabrics

By the Editors

INCREASING availability of new scientific instruments designed to help the textile industry was evident at an exhibit sponsored by the Textile Research Institute as part of its recent 28th annual meeting in New York.

BENDIX COMPUTER DIV. of Bendix Aviation Corp. had on display its G-15 general purpose digital computer performing statistical analysis on fiber stress strain data.

CUSTOM SCIENTIFIC INSTRUMENTS, INC. showed several instruments for the first time. Its West Point Traveler Hardness Tester is said to afford a means of comparing one lot of travelers against another as far as average hardness and range of hardness are concerned. The West Point Roll Runout Indicator is used for checking the runout or eccentricity of both top and bottom spinning and roving rolls. The West Point Gear Runout Tester is designed for checking total composite error.

HUNTER ASSOCIATES LABORATORY, INC. displayed a digital-dial color and color-difference meter. It uses tristimulus filters and vacuum phototubes which are thermostatted for maximum stability.

INSTRON ENGINEERING CORP. had its tensile tester in operation on a single fiber. The instrument uses electronic principles for both the weighting of the forces on the sample and for controlling its extension.

SCOTT TESTERS, INC. demonstrated its new "Scotamatic" device for completely automatic testing of yarns and cords in the tensile range up to 50 lbs. The unit, developed by Courtaulds Ltd. and licensed to Scott, is applied to the Scott Model IP-4 incline-plane tensile strength testing machine. Unattended comprehensive testing of an entire bobbin is possible, or up to 100 samples, with each test automatically recorded at once.

The company also showed its "CRE" Constant-Rate-of-Extension Tensile tester demonstrated for the first time at the Southern Textile Exposition in Greenville, S. C. last October. This tester provides high precision of electric weighing combined with versatility in applications and simplicity of operation. An important feature of the unit is the "time-to-break" indicator which is adjustable to permit the operator to establish and follow a schedule within definite tolerances of time (up to 30 seconds) from instigation of crosshead motion to break of sample.

UNITED STATES TESTING CO. showed its reflectometer for measuring whiteness, a knit shrinkage gauge to measure the recoverability of circular knit goods under tension after laundering and tumble drying, and a yarn abrader for use in evaluating abrasion resistance of all types of yarns; the unit can be used to test the effect of tension devices, knitting needles, guides, and travelers.

UNIVERSAL WINDING CO. introduced its Cycloscope, a direct reading RPM counter with a range from 3,000 to 720,000 rpm. The unit is portable, weighs 7 lbs., and uses a photo-electric type of sensing. Developed primarily for measuring spindle speed, the device is German-made and will be distributed by Universal Winding.

Universal also showed its Tension Analyzer for measurement of tension in yarns in process and its Portable Uniformity Meter for measuring uniformity of yarns in process.

USTER CORP. showed its evenness tester together with quadratic integrater and the Uster spectrograph. Also shown was the Uster custom tension recordograph along with its companion instrument, the West Point cohesion tester which makes possible the adjustment of roving twist and thus compensate for variations in raw material so that roving with optimum twists can be supplied to the spinning frames at all times. The cohesion tester can also be used to evaluate finishing agents on manmade fibers. The tester will not only determine the level of cohesion but also the evenness of drafting.

New fibers were shown by American Enka Corp. with its experimental "Fiber 500", American Viscose Corp. with "Fiber 40" and Eastman Chemical Products Inc. with Kodel.

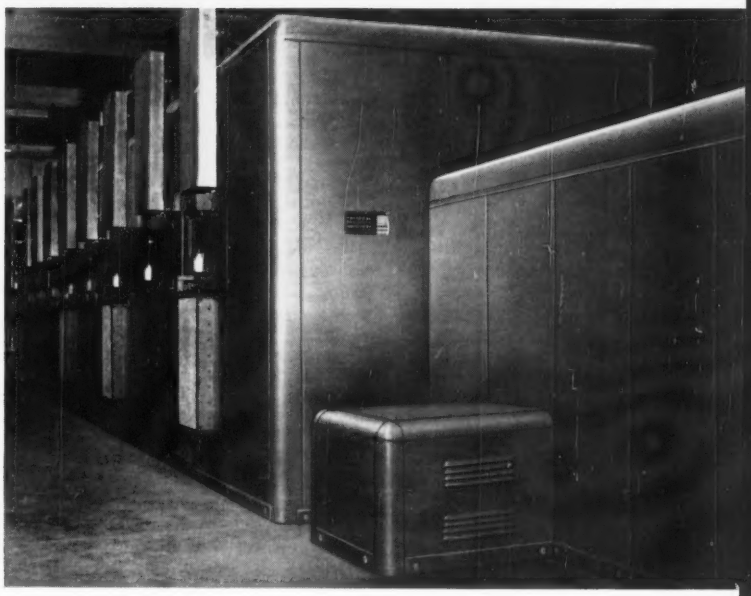
At the meeting, the trustees of TRI elected William E. Clark chairman of the board. He is vice president and general manager of the textile division of United States Rubber Co. He succeeds Walter Regnery, vice president of Joanna Cotton Mills who also served as president. By a change in the bylaws, the office of chairman and president have been split. At the meeting, John H. Dillon, formerly director of TRI, was elected president.

Enka Buys Wire & Cable Firm

American Enka Corp. has purchased William Brand & Co., Inc., a producer of plastic covered wire and cable for the electronics, business machine, communications, guided missile, electric and allied industries, officials of both firms announced. The acquisition of Brand is the second step in a diversification program started in 1957 by Enka, which manufactures rayon and nylon for textile and industrial uses and is a large producer of the new Tyrex viscose tire yarn. Last year Enka acquired The Rex Corp., another producer of wire and cable and also insulating material. Brand will continue to operate under its present management which is headed by Alfred Brand, son of the founder.

BLEACHING
PRINTING
SPECIAL
PROCESSING

"NATIONAL" PERFORATED APRON CONVEYOR DRYER



Evidence of the outstanding efficiency and economy of this "National" drying unit is found in the number of existing and on-order installations among the Nation's leading chemical manufacturers.

Increased drying capacity per square foot of surface; improved uniformity of dried product; much easier apron cleaning; greater efficiency and accessibility of gas or steam heaters; and a generally neater machine to operate and maintain, are characteristics of this drying system resulting from unique and exclusive features of "National" design, construction, operation and control.

The same type of dryer is used for the drying of starch, rubber crumb and a wide variety of chemicals and pharmaceuticals.

The following well-known companies are among the current users of "National" Perforated Apron Conveyor Dryers:

AMERICAN VISCOSE CORPORATION

ARMOUR & COMPANY

DU PONT COMPANY OF CANADA (1956) LTD.

E. I. du PONT de NEMOURS & CO.

AMERICAN ENKA CORP.

NATIONAL ANILINE DIVISION, ALLIED CHEMICAL & DYE CORP.

CANADIAN INDUSTRIES, LTD.

THE DOW CHEMICAL CORP.

CHEMSTRAND CORP.

UNION CARBIDE & CARBON CORP.

Write for Literature Describing These "National" Dryers and Typical Installations

THE NATIONAL DRYING MACHINERY COMPANY

LEHIGH AVE. and HANCOCK ST., PHILADELPHIA 33, PA.

New England Agent JONES & HUNT, INC., Gloucester, Mass. •
Cable Address "NADRYMA"—W. U. Code

HOSIERY FINISHING

new machine cuts cost sharply

Picolet Dye Works reports savings as high as 18 cents per dozen pairs. Quality is better, too

By the Editors

SAVINGS in dyeing and finishing women's nylon stockings ranging from 12 to 18 cents per dozen pairs with the use of the Turbo- Brewin Machine are reported by William Koehlert, president of Picolet Dye Works, Inc., Montgomeryville, Pa. Picolet has been using two of the machines since last August.

Koehlert reports that the savings at Picolet are gained with the Turbo-Brewin Machine in finishing operations that take place between gray goods and pairing. He makes the point that the figures cited are based on labor costs in the area where his plant is located. Such savings would vary, he notes, in other areas where labor costs are either higher or lower.

The finishing economies are achieved by the machine, according to Koehlert, because its use replaces the following conventional operations in hosiery finishing: preboarding; placing stockings in bags for dyeing; insertion of bags in dyeing kettles; extracting; removing stockings from bags and placing them on the post-boarder or in tray dryers.

The saving in labor measurable in cents per dozen is not the only advantage of the Turbo-Brewin Machine, Koehlert reports. When stockings are finished on the machine, the quality of the resulting finishing job is superior, he says, to results obtained with conventional methods.

Among improvements in finishing quality, Picolet has noted in its seven months' use of the machine are these:

Improved color reproduction with a more consistent maintenance of shade from stocking to stocking and dye lot to dye lot. Returns from customers have virtually ceased on grounds of poor color match. In fact, with the Turbo-Brewin machine, Picolet customers find it possible to pair odd stockings from different dye lots.

The finish applied to the stockings penetrates more deeply into the yarn and fabric. At Picolet, the machine has permitted use of thermosetting resins not ordinarily employed in finishing nylon hosiery.

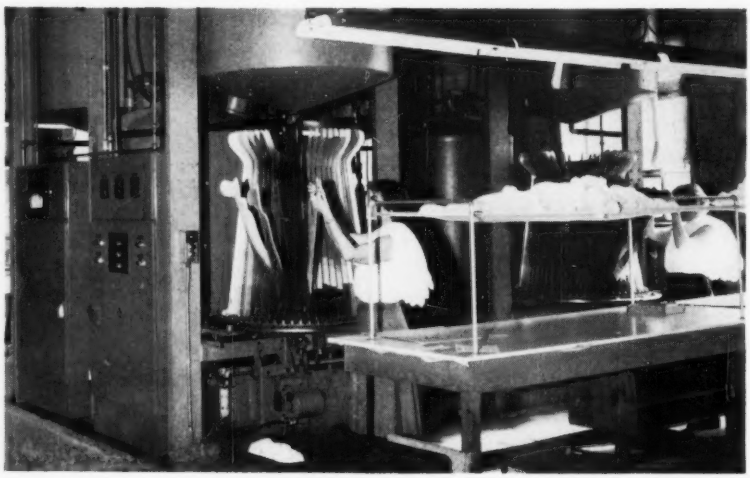
Improved wash fastness is obtained because of greater penetration of the dyes. Picolet attaches considerable importance to this advantage in view of the growing demand for the iridescent and deeper, high fashion shades in stockings such as navy. Unions are said to be excellent.

Pulls are greatly reduced. Use of the Turbo-Brewin machine at Picolet reduces the handling of stockings by operators. Thus snagging is cut with a resultant reduction in mending costs which are the highest single cost item in hosiery finishing. Reduced pulling which consequently greatly reduces mending also has the important additional advantage of yielding more first grade stockings.

When seamless stockings are involved, a notable advantage of the machine relates back to the actual knitting of the stockings. Knitters of seamless stockings have found that they can use raw pirn yarn for welts, instead of heat-set yarn required when stockings are finished by the conventional method. The stockings so knitted with raw pirn yarn and finished on the Turbo-Brewin Machine possess desirable stretch properties in the welt, and the stockings have a good body with a soft silky "hand" it is reported. Savings arising from the use of raw pirn yarn in this instance are said to run as high as 17 cents per dozen.

Use of the machine has also revealed savings in water and steam at Picolet. According to Koehlert, Picolet consumes 50% less water with the Turbo-Brewin units than with the one-bath method of

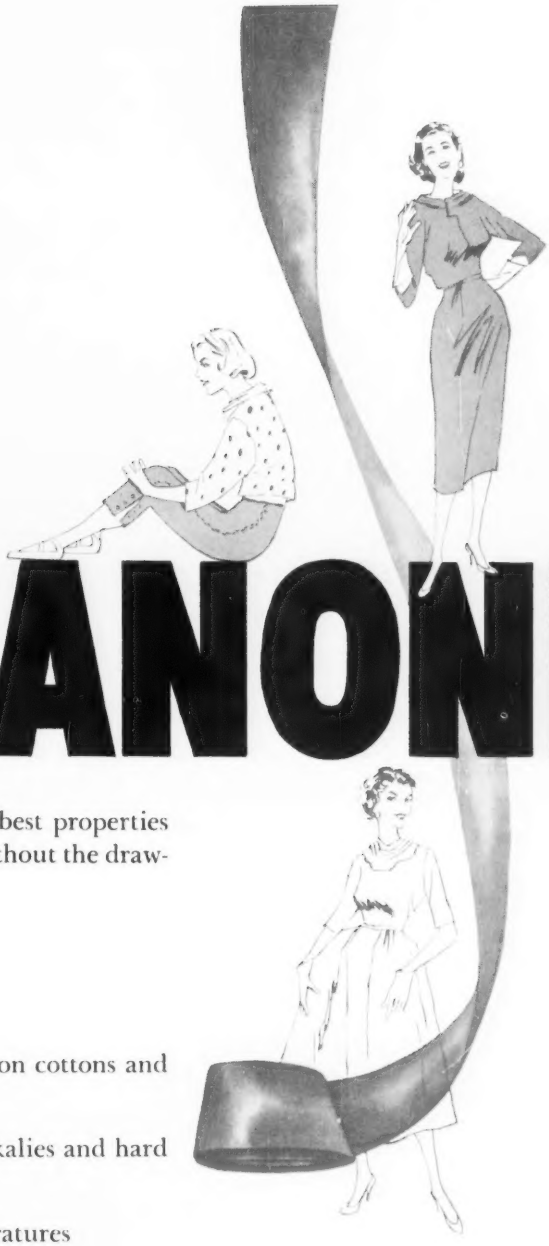
(Continued on Page 40)



FAST AND VERSATILE—The two Turbo-Brewin machines at Picolet shown here combine preboarding, dyeing, postboarding and finishing in one operation.

the modern detergent for today's textile

CARBANONE



At last! A detergent that combines the best properties of nonionic surfactants and soaps, but without the drawbacks of either.

you get...

High activity at low cost

Excellent scouring efficiency on cottons and synthetics

Unusual stability to acids, alkalies and hard water

Ready solubility at all temperatures

High dye dispersing properties

Carbanone is an excellent emulsifier for oils, greases and waxes. It leaves the goods with a soft, absorbent hand.

Write for literature and sample.

HART PRODUCTS — PIONEERED ON RESEARCH

the Hart Products Corporation

1440 BROADWAY, NEW YORK 18, N. Y.

Works and Laboratories, Jersey City, N. J.

Slasher sizing Dacron yarns

By H. L. Sandine & L. M. Anderson
The Du Pont Co.

TECHNICAL advances and trade experience with sizing warps of Du Pont filament Dacron polyester yarn on the slasher have led to virtual elimination of single end sizing techniques. This article presents a summary of current practice along with recommendations from which a start in experimentation may be made in mills where it may be desirable to adopt slasher sizing of Dacron polyester yarns.

Our experience indicates it is advisable to use slasher sized Dacron for continuous filament weaving. With proper selection of sizing materials and careful control of operating conditions, maximum weaving performance and good quality fabric can be obtained with practically all fabric types.

Of the many size candidates evaluated for slasher sizing of filament yarns of Dacron, the following have given the most satisfactory results in our tests.

A) *Hard Film Forming Sizes*[2] (low twist warps, below 12 turns)
Acrysol[1] P-6 N
Estafil[1] PB-259
Nopcosize[1] D-20
Rezosol[1] 1438
Syncryl[1] 30

B) *Soft Film Forming Sizes*[2] (higher twist warps, above 12 turns)
Kordovan[1] B-6
Aquex[1] WS
Sizelene[1] A-1

[1] For proprietary information see Table III.
[2] See Tables I and II for handling and differences in hard and soft sizes.

TABLE II
SUGGESTED SLASHING CONDITIONS

Item	Suggested Conditions for Hard Film Size	Soft Film Size
Size bath temperature (In pan, degrees F.)	160	130
String up with Immersion Roll fully dropped	Single dip Single nip full immersion	Single dip Single nip full immersion
Quetsch Roll — minimum pressure (lbs.)	1200	1200
Slasher Speed — yards/minute	25 to 50	25 to 50
Drying Can Temperatures, degrees F.		
Can No.		
1st	220	220
2nd, 3rd, 4th, 5th	230	230
6th	220	220
7th	200	210
Afterwaxing	Recommended	Not required

General Comments on Slashing

Zero stretch with positive tension is recommended to prevent crushing the loom beam and to avoid yarn strains which can cause excessive fabric shrinkage. Tension variations, which occur because of uneven

TABLE I
PREPARATION OF SLASHER SOLUTION

Step No.	Procedure			Quantity Used or Operating Condition			
				Hard Film Size		Soft Film Size	
1	Draw water into mixing kettle			60 gal. pH 8-8.5		60 gal. pH 8-8.5	
2	Add Soda Ash			1½ lbs.		1½ lbs.	
3	Start heat and agitation—continue until solution temperature reaches			170° F.		140° F.	
4	Add size	Size Bath Formulas		Hard Film Size		Soft Film Size	
		Twist Range	Type Weave	Lbs.	% Solids	Lbs.	% Solids
		TPI					
		7	Taffeta, pique, or sandcrepe	207	7.5	100	4.8
		12-15	Taffeta, pique, or sandcrepe	138	5.0	67	3.2
		17-20	Marquisette	70	2.5	34	1.6
5	Continue agitation (holding temperature at Step 3 level).			5 to 10 minutes Hard Film		5 minutes Soft Film	
6	Add water to bring total volume to			100 gallons		100 gallons	
7	Store size solution in size kettle at			160° F.		135° F.	
8	Filter solution at size pan			One pass through 3 or 4 layers of nylon sheer or equivalent fabric			

braking force on the section beams or because yarn sticks to the drying cylinders, may cause fabric streaks and should be avoided. A coating of Teflon TFE-fluorocarbon resin on the first three or four drying cylinders has proved helpful in eliminating sticking to heated rolls.

Size kettles and lines should be thoroughly cleaned periodically with a water solution of soda ash. This treatment eliminates contaminants, insuring a better bond between size and yarn.

Pre-Oiled Yarns

A check should be made to establish the compatibility of any oil used in warp preparation with the size to be used. Poor compatibility could result in inadequate adhesion of the size to the yarn.

Determining Amount of Size

1. Select two samples, each weighing ten grams, of each of the following:
   a. Sized yarns
   b. Unsized yarns
   conditioned at 70°F. and 65% relative humidity.
2. Weigh samples accurately and average results for each group.
3. Boil-off all samples for 30 minutes in slightly alkaline water (pH8).
4. Allow samples to dry and condition again as in Step 1.
5. Weigh and average results for each group.

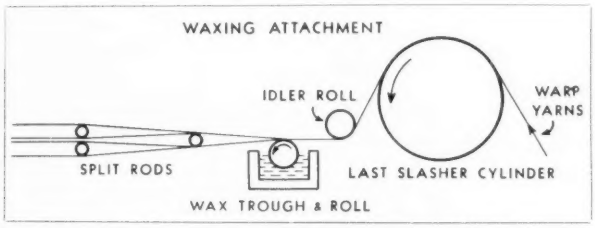


FIGURE 1—Schematic drawing showing position of wax trough and roll on slasher.

6. Calculate the per cent size on the yarn according to the following formulation:

Let the tabulated notation designate samples:

	Average Weight of Two Samples Before Boil-off	After Boil-off
Sized yarn	a	a'
Unsized yarn	b	b'

Then

$$\frac{a - a'}{a'} \times 100 = \text{per cent size (and wax) removed by boil-off} = \text{(Item a)}$$

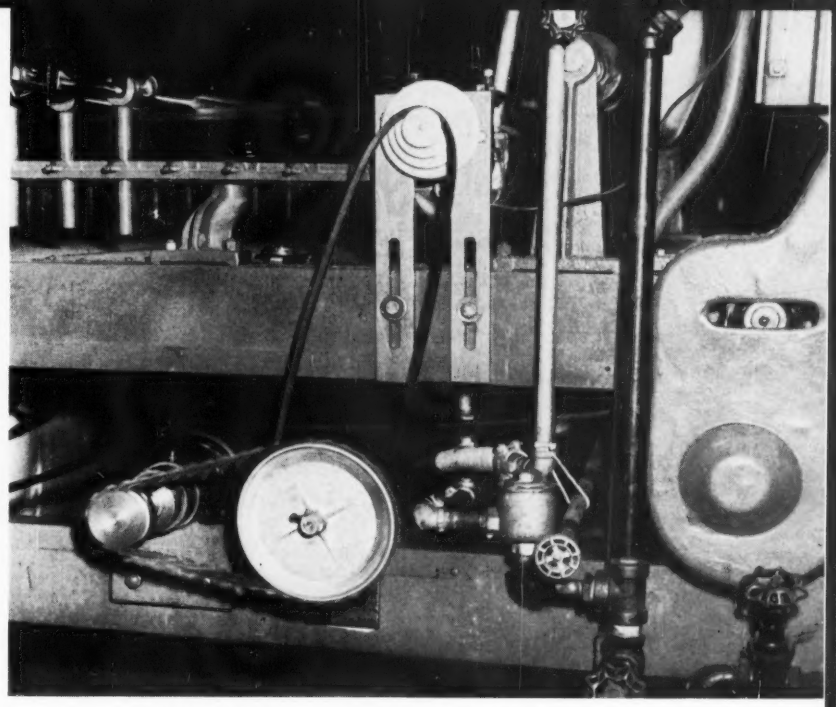


FIGURE 2—Belt arrangement for driving the wax roll.

$$\frac{b - b'}{b'} \times 100 = \text{per cent extractibles removed by boil-off} = \text{(Item b)}$$

and

$$\text{(Item a)} - \text{(Item b)} = \text{per cent size (and wax) removed corrected for extractibles.}$$

or

$$\frac{a - a'}{a'} - \frac{b - b'}{b'} \times 100 = \text{corrected per cent size (and wax) removed by boil-off.}$$

If the warp has been after-waxed, the above test and calculation will provide the total size and wax pick-up. In such a case, a separate test for wax using a suitable solvent will have to be made and the results of the boil-off test corrected accordingly.

Afterwaxing on Slasher

The application of a water-emulsifiable wax at the take-up end of the slasher is frequently desirable. This added lubrication of the sized yarn usually results in higher weaving efficiency and cleaner cloth.

Any conventional wax ordinarily used for afterwaxing may be used to wax yarns of Dacron polyester fiber. The waxes listed in Table III give satisfactory results when properly used. The position of the wax trough and roll on the slasher is shown schematically in Figure 1. Figures 2 and 3 are photographs of a typical installation. Suppliers are listed at the end of this article.

In practice, the wax is melted and stored at 170°F. to 190°F. in a closed reservoir. It is applied to the yarns from an open trough with a power driven, chrome plated roller. Both the reservoir and trough are heated, preferably by electrical means. Tests have shown that 0.5% to 1.0% of wax (on weight of yarn) can be applied from a three-inch diameter wax roll rotating at a speed of 2.5 rpm when slashing at 35 ypm.

Several precautions should be observed while afterwaxing.

1. Use of a water-emulsifiable wax facilitates subsequent removal of the wax from the fabric. (Several suitable waxes are listed at the end of this article.)
2. Application of wax from a bath at 170°F. to 190°F. helps to insure uniformity.
3. Maintenance of a uniform angle of contact of warp yarn across the entire length of the wax roll helps to eliminate variable wax pick-up.
4. Sufficient distance (minimum of 12 inches) should be allowed between the wax roll and the buster bar of split rods to permit the wax to solidify.

Scouring

The majority of sizes and waxes for Du Pont Dacron polyester fiber can be removed from the fabric by a normal, hot soapy scour. The processor should be satisfied by his own tests that the particular size or wax used is acceptable in this respect.

Heat-setting should be done after scouring to avoid setting dirt and oils in the fabric.

If excessive amounts of wax inadvertently have been applied to the warp, a normal scour may be inadequate. In such a case, the following special scouring procedure may be necessary:

1. Pad the gray fabric with a solvent, such as "Varsol" or other high boiling point aliphatic hydrocarbon.
2. Batch the fabric in a roll and hold it for one-half to one hour.
3. Scour the fabric with a nonionic detergent formula consisting of 0.1 to 0.2 ounces per gallon each of "Alkanol" HC surface active agent, sodium tripolyphosphate, sodium meta-silicate and 0.003 to 0.005 ounces per gallon of sodium carboxymethyl cellulose (this removes the solvent and wax).

TABLE III
SIZES, AFTERWAXES, AND SUPPLIERS' ADDRESSES

"Acrysol" P-6 N Rohm & Haas Company Textile Chemicals Dept. Philadelphia, Pennsylvania	"Aquex" WS Aquex Development & Sales Corp. Whippany, New Jersey
"Estafil" PB-259 Stein Hall Company New York, New York	"Resozol" 1438 E. F. Houghton Company Philadelphia, Pennsylvania
"Kordovan" B-6 Specialty Products Co. Jersey City, New Jersey	"Sizelene" A-1 Southern Chemical Association 1165 Broadway New York, N. Y.
"Nopcosize" D-20 Nopco Chemical Company Harrison, New Jersey	"Syncryl" 30 American Aniline & Extract Co. Philadelphia, Pennsylvania

AFTERWAXING DEVICES

Chemical Processing Company Charlotte, North Carolina	Seydel-Wooley & Company Atlanta, Georgia

WATER-EMULSIFIABLE WAXES

"Ceraloid" 356 Colloids, Inc. Newark, New Jersey	"Syncote" S Seydel-Wooley & Company Atlanta, Georgia
"Lubekote" OW-4 Chemical Processing Co. Charlotte, North Carolina	"Sonowax" 2544 L. Sonneborn Sons, Inc. New York 10, New York
"Stantex" NLW-6 (Oil Wax) Standard Chemical Products, Inc. Hoboken, New Jersey	"Texize" AS-10 Texize Chemicals, Inc. Greenville, South Carolina

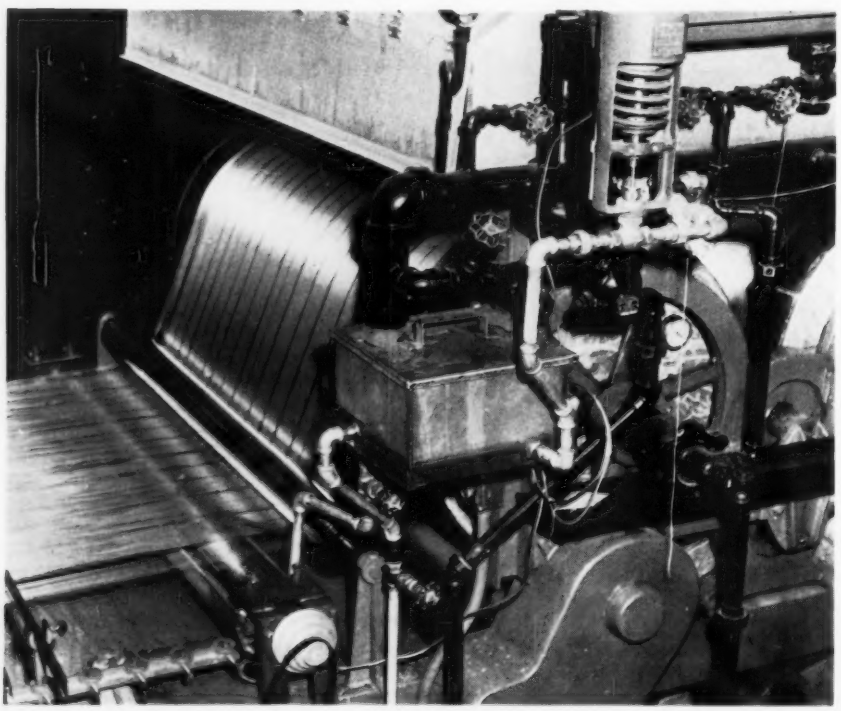
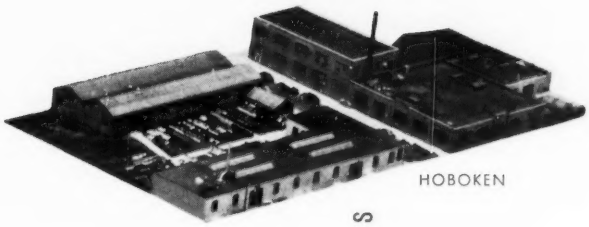


FIGURE 3—This photograph of a typical waxing attachment shows trough and roll, wax reservoir, steam lines and pipe connections.

The conditions suggested in Tables II and III are typical of those commonly used by processors. Variation from the given conditions to suit individual mill requirements may be necessary.

Equipment and Supplies

The equipment and supplies listed have been used successfully. Undoubtedly others are available which also would prove satisfactory. More detailed information on the use of the sizes and afterwaxes mentioned can be obtained from their respective suppliers. ■



HOBOKEN

for more than 35 years

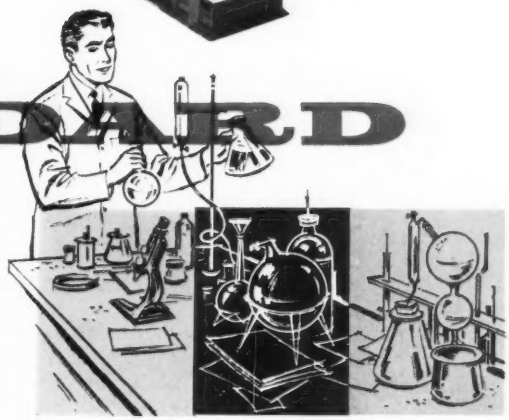
SPECIALISTS IN TEXTILE FINISHES TEXTILE OILS TEXTILE SPECIALITIES

CHARLOTTE

STANDARD

specialists in

TEXTILE OILS
TEXTILE FINISHES
TEXTILE SPECIALITIES



stanset 130

A low odor rapid curing resin combining good crease resistance, low chlorine degradation and high tensile and tear strength. When finished with Stanset 130, fabrics of cotton, viscose rayon, silk, wool, and mixtures of these fibers are not discolored when treated with hot chlorine solutions. It gives excellent performance for wash'n wear on white shirting fabrics.

stanset D 40

This chemical reactor resin gives standout wash'n wear. It imparts lasting wrinkle-resistance and extremely high shape-retention to dress fabrics. Even after countless washings, fabrics treated with Stanset D 40 appear fresh, starched and clean-looking. For dress fabrics that "look younger longer" Stanset D 40 is the preferred product.

catalyst 100

Catalyst 100 is an all-purpose product with a wide range of concentration and curing conditions and is recommended for all types of resins. It affords maximum bath stability. With resins where chlorine retentive properties vary depending upon finishing conditions, however, Catalyst 100 should be used. Write today for samples and complete technical information on any or all of these products.

STANDARD CHEMICAL PRODUCTS INC.
HOBOKEN, N. J. • CHARLOTTE, N. C.

1958 figures compared with earlier years

U. S. MAN-MADE FIBER OUTPUT

TOTAL PRODUCTION of man-made fibers in the United States last year was 1,606,700,000 pounds, according to the *Textile Organon*, statistical bulletin of the Textile Economics Bureau, Inc. This 1958 figure represented a decline of 158,000,000 pounds or 9% from the record high production of 1957.

Output of rayon and acetate during 1958 amounted to 1,014,300,000 pounds. This was 11% below the 1957 total of 1,139,400,000 pounds. By individual product, the *Organon* notes, the only production increases over 1957 were in acetate yarn which was up 7%, and in tured in 1957. Non-cellulosic staple and tow production in 1958 was 170,000,000 pounds or 6% less than 1957. Textile glass fiber production amounted to 103,400,000 pounds or 5½% less than 1957.

Preliminary estimates of 1958 world rayon and acetate production by the *Textile Organon* is fixed at 4,925,000,000 pounds, a decline of 9½% from the record output of 5,436,000,000 pounds produced in 1957. Countries which were prominent in this decline, the *Organon* notes, were the United States. Japan and the United Kingdom.

U. S. Man-Made Fiber Production*

(in millions of pounds)

	1956	1957	1958
RAYON			
Regular tenacity filament yarn	186.3	165.6	148.6
high tenacity filament yarn	370.5	340.8	264.5
staple fiber and tow	341.0	371.2	324.2
ACETATE			
Filament yarn	192.8	207.9	222.6
Staple fiber and tow	57.3	53.9	54.4
NON-CELLULOSIC**			
Filament yarn	272.6	335.0	319.0
Staple fiber and tow	127.3	180.7	170.0
TEXTILE GLASS FIBERS	96.9	109.6	103.4
TOTAL MAN-MADE FIBERS AND YARNS	1,644.7	1,764.7	1,606.7

* Data in this tabulation is derived from the February, 1959 issue of the "Textile Organon", Bulletin of the Textile Economics Bureau, Inc.

** This classification is sometimes referred to as the "newer" synthetics or the "true synthetics" to distinguish them from rayon and acetate which are made from cellulose. The classification includes nylon (polyamide) including caprolactam nylon; the acrylics (such as Orlon, Acrilan and Dynel); the polyesters (Dacron); polyethylene; saran (polyvinylidene chloride) and such new fibers as Verel, Darvan, Creslan, Zefran and Kodel as well as others.

acetate staple fiber and tow, up 1%. High tenacity rayon yarn was down by 22½%; regular plus intermediate tenacity rayon yarn by 10½%; rayon staple fiber by 12½%.

Producers' stocks of rayon and acetate held on Dec. 31, 1958 were 102,900,000 pounds, a drop of 21% from the 130,400,000 pounds held in inventory on the same date a year earlier.

Total output of non-cellulosic fiber and yarn including textile glass fibers was 592,400,000 pounds, as compared with the total of 625,300,000 pounds produced in 1957. Production of non-cellulosic yarn and monofilaments totaled 319,000,000 pounds in 1958, a drop of 5% under the 335,000,000 pounds manufac-

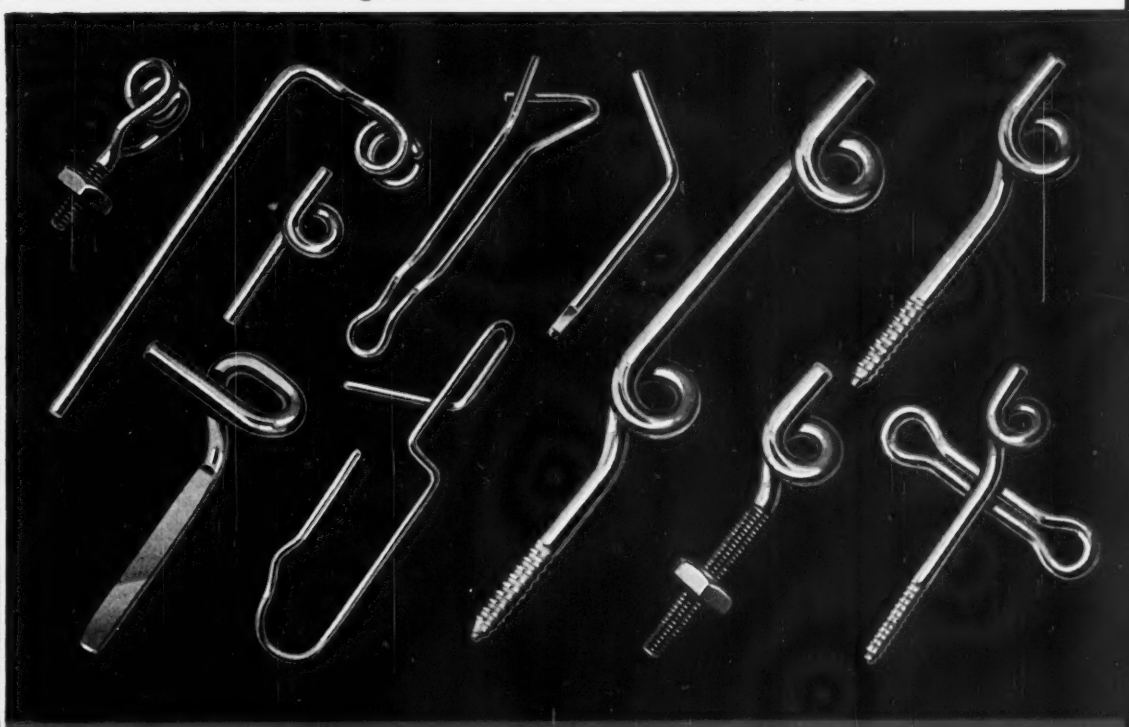
Noncellulosic Fiber Shipments

For the first time since the introduction of nylon American producers last month revealed figures on their noncellulosic shipments which divided them into nylon, acrylic and other fibers. Published by the Textile Economics Bureau, the figures revealed that last year producers' shipments of nylon filament yarn had been 266,200,000 pounds; other kinds of noncellulosic filament amounted to 42,400,000 pounds. Shipments of nylon staple and tow amounted to 26,800,000 pounds; shipments of acrylic staple and tow to 96,700,000 pounds. Other types of noncellulosic staple and tow shipped amounted to 34,600,000 pounds.

Floating Marine Rope

Tests conducted at the Boston Naval Shipyard indicate that floating marine rope made of stabilized polyethylene yarn has outstanding resistance to weather and heat which should make the rope suitable for application in naval service as messengers, life lines and floating nets, according to Reeves Brothers. Findings of the tests were made in an evaluation report released by the U.S. Department of Commerce. *For further information write the editors.*

MACHINERY and EQUIPMENT SECTION



NOT JUST CHROMIUM PLATED, BUT

Mitchell-Bissell **CHROMIUM PLATED**

THERE'S A DIFFERENCE! The chromium plating on Mitchell-Bissell Thread Guides is denser and longer wearing than on other wire guides on the market. A thick application of hard chromium, polished to a mirror finish, makes these the highest grade wire guides obtainable. Can be made in any shape or any size desired.

Write for new wire guide catalog

MITCHELL-BISSELL CO. • TRENTON, NEW JERSEY

Southern Representative: R. C. L. Holt, Jr. & Associates, Jefferson Bldg., Greensboro, N. C.

MITCHELL-BISSELL CO.

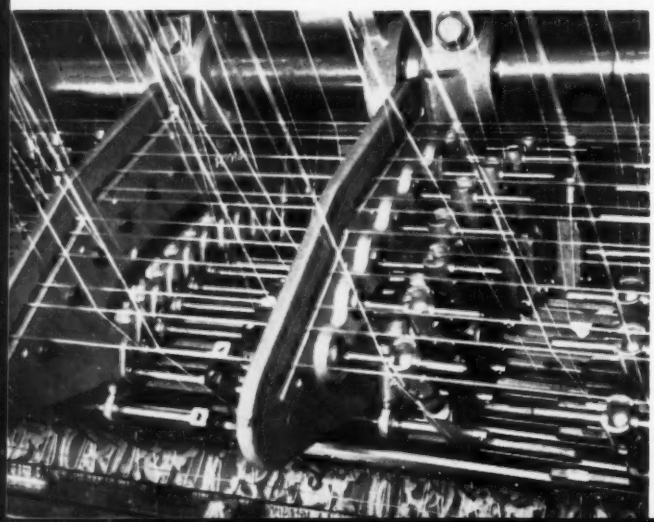
New, faster lace Knitter

LACIER LACE—Complex floral patterns as the one shown above are knitted at higher speeds with Kidde's new Model E-24 raschel machine.

Improved 24 bar raschel machine produces more intricate patterns in wider range of styles

By the Editors

IN RECENT YEARS, the increasing use of raschel knitting machines to make lace has created a whole new and exciting area within the lace manufacturing industry. Raschel laces have found a widening market in a growing variety of end uses where an attractive lace is wanted at a lower cost than the laces produced on Leavers machines.



This close up of the hangers and guide bar assembly shows some of the 24 bars used in the new Kidde machine.

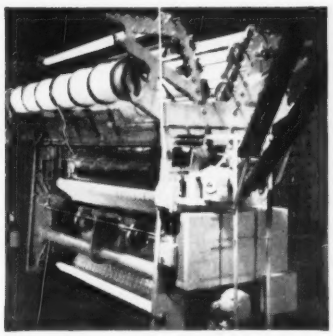
Pioneered by Kidde Textile Machinery Corp., of Bloomfield, N. J. which introduced its first raschel machine for lace making in 1947, use of these machines for this purpose has grown steadily. Today, it is estimated that as many as 500 Kidde machines are employed in the lace making industry and that as many as 30 companies use them.

Now fresh and more varied possibilities for raschel lace have been opened by the development by Kidde of a new 24 bar lace knitter known as the Model E-24. The new machine, because of its improvements, is said to open the door to a greater range of patterns for laces. It thus points the way to many new end uses for moderate priced laces with the possibility of wider markets than ever before for these goods.

Among the advantages of the new Kidde 24 bar lace knitter as cited by Kidde spokesmen are these:

1. Moving elements are made of magnesium, thus permitting higher speeds.
2. Guide bars can be interlocked so as to reduce guide bar swing.
3. The 24 bar construction permits knitting of more intricate and finer lace patterns, thus greatly widen-

(Continued on Page 63)



There's no limit to the lace patterns with the NEW KIDDE 24 BAR RASCHEL KNITTER

Look at the lace in the picture. Every one of those intricate and varied patterns can be made on a single machine . . . Kidde's new 24 bar knitter. Look again at the quality of the lace . . . at the fine detail and the clear outlining of the pattern. That's quality lace turned out at moderate cost.

This new addition to Kidde's line of Raschel knitters is built to operate with 24 bars . . . but can be used with 14 or 18 for less intricate patterns. It turns the lace out fast, too . . . up to 300 courses per minute.

Like all Kidde machines, the new 24 bar knitter is simple, accessible and easy to work on. Equally important, it is ruggedly built to withstand round-the-clock, high speed operation. Write to Kidde for full information.

TRICOT AND RASCHEL MACHINES • TRICOT WARPERS • HORIZONTAL WARPERS • BEAMERS
CREELS • SLASHERS • WINDER-REDRAWS • TENSOMETERS • TENSION COMPENSATORS

Kidde

TEXTILE MACHINERY CORPORATION — BLOOMFIELD, NEW JERSEY

The word KIDDE is the trademark of Walter Kidde & Company, Inc., and its affiliated companies.

MULTI-MACHINE ASSIGNMENTS

A new series for mill managers

1 How to cut machine interference

By Thomas F. O'Connor

MACHINE INTERFERENCE occurs in many phases of textile processing. It is a phenomenon occasioned by certain circumstances arising when an operator has more than one machine in his care. The term can mean either the overlapping of machine stoppages, or, more commonly, the productive time lost due to the overlapping.

Specifically, we are referring to machines which are automatic in operation up to a point, and which are usually assigned in number to one operator because of the fact that the demands made on the operator's time by one machine would be relatively small. We will not, therefore, be concerned with any machine which requires one operator exclusively, or with any which requires a team of operators, even though automatic features may be present. But when only a small amount of tending time is needed to keep the machine producing, for example in connection with loading and unloading, creeling and doffing, then, depending on the servicing requirements, a reasonable workload may comprise any number from 2 to 200 machines per operator. Making assignments of this nature involves consideration of many factors, and forms the subject of this series. It is necessary first to be clear about the term "automatic".

Automatics and Semi-Automatics

For present purposes, the machines may be divided into two classes-automatic and semi-automatic. Both are serviced by an operator or tender who performs certain necessary duties, such as creeling and doffing. Where they differ is in the area of random stops. Automatics are those which do not have random stops, or have so few that for practical purposes they may be said to have none. A picker is an example. When loaded and started these machines will run without interruption until their work is complete. We will not need to deal with these because they may be assigned by simple arithmetic so as to eliminate the chance of interference.

Semi-automatics, on the other hand, give rise to unpredictable demands on the operator's time because of the occurrence of stops arising from chance causes, over and above the stops which could otherwise be scheduled. Roving frame stops from roving end breaks, and loom stops from warp or filling breaks, are examples of unscheduled interruptions.

When a machine stops, it has to have attention before it can continue to produce. If the tender has a number of machines, all liable to stop at random, he may not be able to give this attention immediately. Then the stopped machine has to wait. In consequence, production is lost. This loss is in addition to the inevitable loss of production while the machine is actually being serviced. It is the interference mentioned above.

On account of this random loss, semi-automatics are much more difficult to assign for best results than the automatic machines, and the problems of assigning and setting standards for semi-automatic machines form the basis of this series.

THE AIM OF THESE ARTICLES

Semi-automatic machines, such as looms, are usually assigned in multiple to one operator. When this is done, some overlapping of stoppages may occur. A machine may thus have to wait for service. Efficiency is thereby lost. The extent of such loss varies with the number of machines assigned to one operator. This series will show how to determine what number of machines to assign for best results. It will consist of three articles in addition to the one here presented.

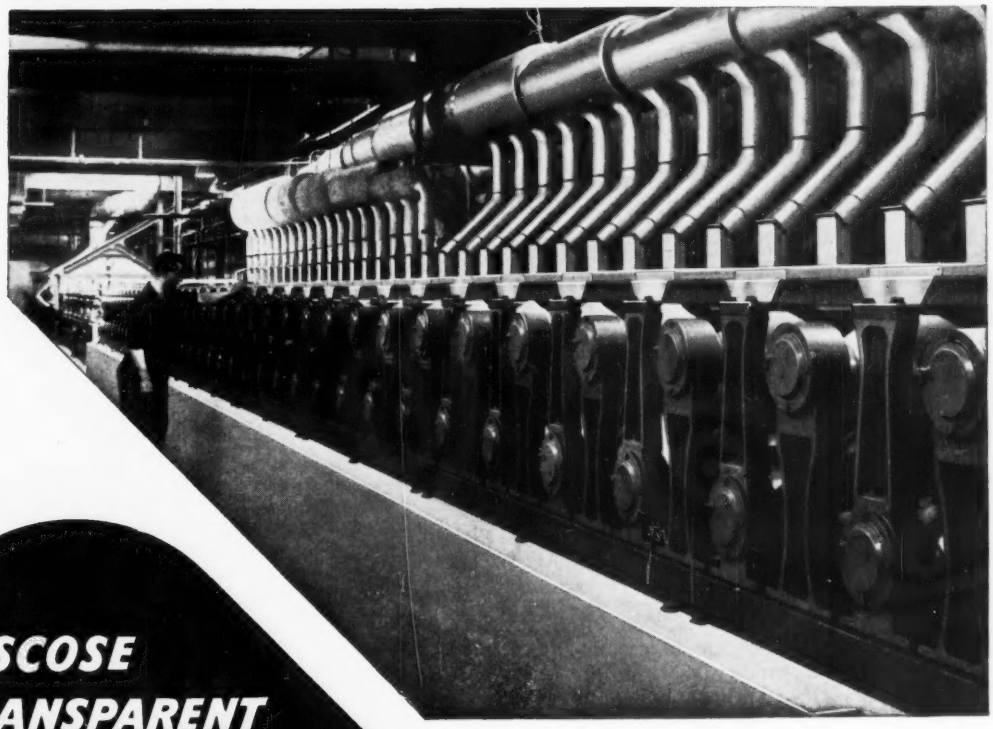
Factors in Machine Interference

Assuming that an operator is to have more than one machine, since there are random stops, interference is bound to occur. Nevertheless it is possible to take steps to keep it down by considering the contributory factors. The more machines per operator, the greater the risk of interference. It follows that the lower the assignment, the less the interference. In the limit, with one machine per operator, interference would be nil, but labor cost would be high. Somewhere along the line a compromise has to be found.

Another factor is the servicing routine. Does the tender take the stop nearest to hand? Or does he patrol the machines on a rigid schedule and attend to stops as he comes across them? This latter is known as cyclic servicing; the former as random servicing. The amount of interference depends to some extent on which routine is used, and it should be noted that this series will be aimed especially at the random servicing method which is the more widely adopted; but if space permits, something may be said about cyclic servicing too.

Still another factor is the ratio of tender work time to machine run time, a factor affected by variations in the speed of the man, and variations in the speed of

(Continued on Page 36)



VISCOSE TRANSPARENT *film* . . .

Photograph by courtesy of Transparent Paper Limited, Bury

at nearly 7 feet a second

ANOTHER EXPERT JOINS DOBSON & BARLOW

We announce with great pleasure the appointment to our technical staff of Mr. E. J. Kirkman specialist with 20 years global experience of manufacturing techniques in viscose film production and in all the various adaptations of film coating. His unmatched knowledge will add strength and lustre to our consultative services on modern equipment and operational efficiency.

INCREASED PRODUCTION

Designed and manufactured in close collaboration with the industry, Dobson & Barlow's new Viscose Transparent Film Machine, shown here in operation, produces 55" wide film in 1,000 lb. finished reels. The machine is designed to run at speeds up to 400 feet per minute. A number of these machines have been supplied to the Bridge Hall Mill of Transparent Paper Limited, Bury, for their re-equipment programme. These high production figures are made possible by 8-pass treatment tanks, greatly accelerated cylinder drying and improved reel tensioning.

IMPROVED QUALITY WITHOUT WASTE

Specially prepared roller surfaces, a new drying system and the careful attention given to the finish of all contact parts ensures exceptionally smooth film of regular thickness, and virtually no waste.

NEW PROCESSING ECONOMIES

An oil-immersed gear box drive to each treatment tank, improved arrangement of rollers, protection against corrosion, and general machine accessibility make definite economies in maintenance costs.

DOBSON & BARLOW MACHINERY SALES LIMITED

BRADLEY FOLD, BOLTON, ENGLAND

WE INSTALL A COMPLETE PLANT OR SUPPLY AN INDIVIDUAL MACHINE.

MULTI-MACHINE ASSIGNMENTS

A new series for mill managers

1 How to cut machine interference

By Thomas F. O'Connor

MACHINE INTERFERENCE occurs in many phases of textile processing. It is a phenomenon occasioned by certain circumstances arising when an operator has more than one machine in his care. The term can mean either the overlapping of machine stoppages, or, more commonly, the productive time lost due to the overlapping.

Specifically, we are referring to machines which are automatic in operation up to a point, and which are usually assigned in number to one operator because of the fact that the demands made on the operator's time by one machine would be relatively small. We will not, therefore, be concerned with any machine which requires one operator exclusively, or with any which requires a team of operators, even though automatic features may be present. But when only a small amount of tending time is needed to keep the machine producing, for example in connection with loading and unloading, creeling and doffing, then, depending on the servicing requirements, a reasonable workload may comprise any number from 2 to 200 machines per operator. Making assignments of this nature involves consideration of many factors, and forms the subject of this series. It is necessary first to be clear about the term "automatic".

Automatics and Semi-Automatics

For present purposes, the machines may be divided into two classes-automatic and semi-automatic. Both are serviced by an operator or tender who performs certain necessary duties, such as creeling and doffing. Where they differ is in the area of random stops. Automatics are those which do not have random stops, or have so few that for practical purposes they may be said to have none. A picker is an example. When loaded and started these machines will run without interruption until their work is complete. We will not need to deal with these because they may be assigned by simple arithmetic so as to eliminate the chance of interference.

Semi-automatics, on the other hand, give rise to unpredictable demands on the operator's time because of the occurrence of stops arising from chance causes, over and above the stops which could otherwise be scheduled. Roving frame stops from roving end breaks, and loom stops from warp or filling breaks, are examples of unscheduled interruptions.

When a machine stops, it has to have attention before it can continue to produce. If the tender has a number of machines, all liable to stop at random, he may not be able to give this attention immediately. Then the stopped machine has to wait. In consequence, production is lost. This loss is in addition to the inevitable loss of production while the machine is actually being serviced. It is the interference mentioned above.

On account of this random loss, semi-automatics are much more difficult to assign for best results than the automatic machines, and the problems of assigning and setting standards for semi-automatic machines form the basis of this series.

THE AIM OF THESE ARTICLES

Semi-automatic machines, such as looms, are usually assigned in multiple to one operator. When this is done, some overlapping of stoppages may occur. A machine may thus have to wait for service. Efficiency is thereby lost. The extent of such loss varies with the number of machines assigned to one operator. This series will show how to determine what number of machines to assign for best results. It will consist of three articles in addition to the one here presented.

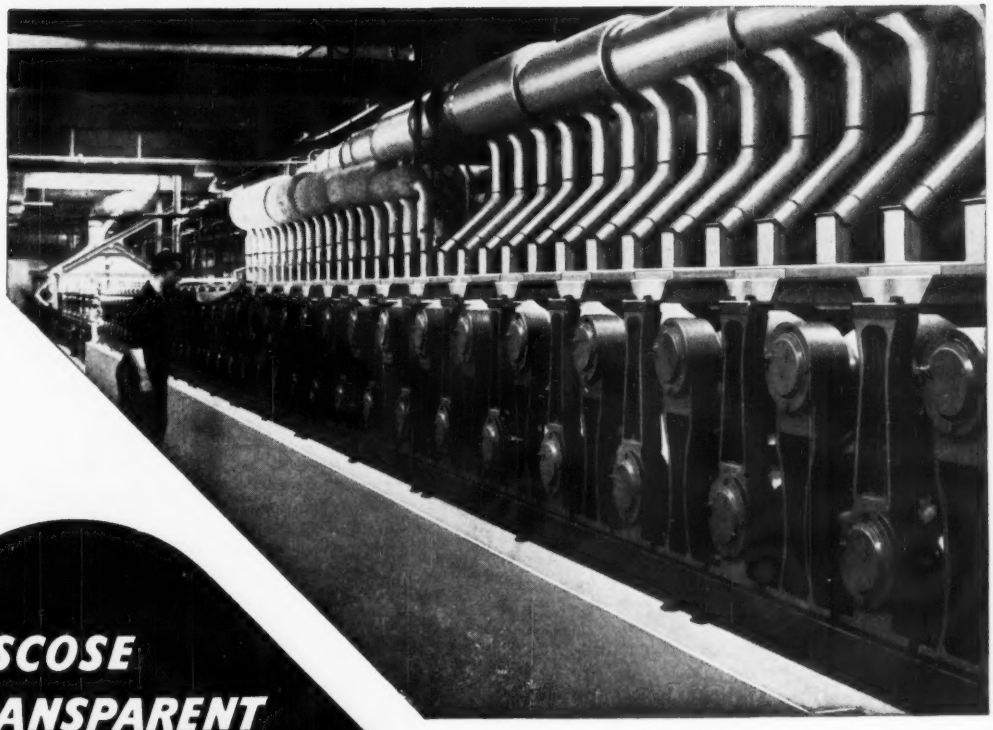
Factors in Machine Interference

Assuming that an operator is to have more than one machine, since there are random stops, interference is bound to occur. Nevertheless it is possible to take steps to keep it down by considering the contributory factors. The more machines per operator, the greater the risk of interference. It follows that the lower the assignment, the less the interference. In the limit, with one machine per operator, interference would be nil, but labor cost would be high. Somewhere along the line a compromise has to be found.

Another factor is the servicing routine. Does the tender take the stop nearest to hand? Or does he patrol the machines on a rigid schedule and attend to stops as he comes across them? This latter is known as cyclic servicing; the former as random servicing. The amount of interference depends to some extent on which routine is used, and it should be noted that this series will be aimed especially at the random servicing method which is the more widely adopted; but if space permits, something may be said about cyclic servicing too.

Still another factor is the ratio of tender work time to machine run time, a factor affected by variations in the speed of the man, and variations in the speed of

(Continued on Page 36)



VISCOSE TRANSPARENT film . . .

Photograph by courtesy of Transparent Paper Limited, Bury

at nearly 7 feet a second

ANOTHER EXPERT JOINS DOBSON & BARLOW

We announce with great pleasure the appointment to our technical staff of Mr. E. J. Kirkman specialist with 20 years global experience of manufacturing techniques in viscose film production and in all the various adaptations of film casting. His unmatched knowledge will add strength and lustre to our consultative services on modern equipment and operational efficiency.

INCREASED PRODUCTION

Designed and manufactured in close collaboration with the industry, Dobson & Barlow's new Viscose Transparent Film Machine, shown here in operation, produces 55" wide film in 1,000 lb. finished reels. The machine is designed to run at speeds up to 400 feet per minute. A number of these machines have been supplied to the Bridge Hall Mill of Transparent Paper Limited, Bury, for their re-equipment programme. These high production figures are made possible by 8-pass treatment tanks, greatly accelerated cylinder drying and improved reel tensioning.

IMPROVED QUALITY WITHOUT WASTE

Specially prepared roller surfaces, a new drying system and the careful attention given to the finish of all contact parts ensures exceptionally smooth film of regular thickness, and virtually no waste.

NEW PROCESSING ECONOMIES

An oil-immersed gear box drive to each treatment tank, improved arrangement of rollers, protection against corrosion, and general machine accessibility make definite economies in maintenance costs.

DOBSON & BARLOW MACHINERY SALES LIMITED

BRADLEY FOLD, BOLTON, ENGLAND

WE INSTALL A COMPLETE PLANT OR SUPPLY AN INDIVIDUAL MACHINE.

Machine Interference

(Continued from Page 34)

the machine. The greater the ratio, the greater the chance of interference. Therefore ways of reducing the ratio should be sought. Taking the machine first, a slower speed has to be considered as a possibility. This does not necessarily mean less productivity. For example, a roving frame set to run at excessive speed may produce excessive ends down, with high interference as a result. If the speed were reduced, greater productivity might be achieved. Not only that, but with fewer piecings of broken ends, quality would be better. One of the important advantages to be expected from the present new approach is that machine speeds as well as assignments may be engineered for best results.

Turning to the operator, we have to find ways to reduce the time he takes over his necessary tasks, without the hated speedup. Much can be done by careful selection, taking into account aptitudes. Attention to a thorough training program is valuable too. Thirdly, a good hard look at the work content of his tasks will usually indicate improvement in two directions—reapportionment of duties, and better methods for those which remain. These approaches, so briefly indicated here, are dealt with in detail in many excellent text books, to which the reader is referred.

One approach to which we may return later is known as teamwork. This means that an operator who is momentarily pressed will accept help from a fellow worker; and whenever he is free, by reason of all his machines running, he will be ready to give help in return if needed. By this device, interference is cut. Apart from teamwork no more will be heard in this series about devices for cutting interference. We start on the basis that what is possible has been done, and there is still interference to be taken into account.

Determining Interference

There is no way of knowing how much interference is present in any given situation except by measuring it with a stopwatch or some similar device, and when the answer is obtained it is a useless bit of history. It cannot be used in setting a standard, because interference is a chance element, and the amount experienced at any time, is the result of the unique set of circumstances prevailing at that instant. What is really relevant is, not what amount of time a certain operator lost due to interference in the last hour, but what is the average amount he may be expected to lose per hour, week in, week out.

A standard containing such an allowance, correctly estimated, would be good for many purposes. It would be a help in apportioning work assignments, in paying wages, in costing the job, in budgeting, in planning production, and so forth.

Such an allowance for general application could be obtained by the use of mathematics based on probabilities. A mathematical solution was obtained on these lines by Henry Ashcroft (England) in response to a request from the present writer in 1948. The tables which are an important part of the methods to be described in this series were computed from Ashcroft's formula. The tables are too bulky to be reproduced in full here, but it is intended to print a selection from the most used parts, and publish them in full if there is sufficient demand. More about the tables and how to use them will be presented in the next installment in this series.

ABOUT THE AUTHOR

A mechanical engineer educated in England, Thomas F. O'Connor first encountered the problem of machine interference on a bank of Leesona winders. He brought the problem to Henry Ashcroft who, he says, provided a solution which is generally applicable to any bank of machines on which interference occurs. Since then, O'Connor has calculated extensive tables of productivity factors for its use. He has also published a book, "Productivity and Probability" and many articles on industrial engineering subjects.

Now a citizen of the United States, O'Connor has spent much time in the South applying his techniques in textile mills. Seminars held by him in Greenville, S. C., were attended by engineers of many large mills. He has also taught engineering at N. C. State College.

Automatic Colorimeter

Gardner Laboratory, Inc., has introduced the Gardner Colorgard, a new automatic colorimeter for production control of the color of raw cotton. The new instrument also is adaptable to production control of the color of plastics, ceramics, leather, rubber, paper, celluluose products, textiles, chemicals and other materials. After each reading and release of the actuating button, the instrument automatically restandardizes itself. *For further information write the editors.*

New Gardner Colorimeter

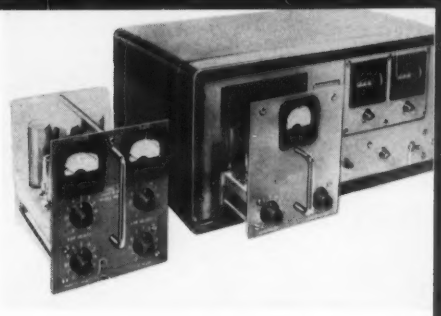
Precision Web Guides

Stanford Engineering Co. is now offering its enlarged 110 Series of precision automatic web guides in either the original vacuum type or the newer hydraulic models. The 110 Series is reported to meet the needs of practically every application in which the web must be accurately positioned immediately before entering a critical processing operation. Any deviation of the web path is perceived by a special sensing head and transmitted by a signalling mechanism to the actuator which physically repositions the guide rolls. *For further information write the editors.*

Plastic Pickers

Southern Shuttles Division of Steel Heddle Manufacturing Co. has announced the addition of the Durapic "plastic" picker to its line of products for the textile industry. The picker, a long-chain high-molecular-weight polyethylene, is said to have long service life and need fewer replacements. The company currently is accepting trial basis, small quantity orders for Durapic pickers. *For further information write the editors.*

NEW MACHINERY EQUIPMENT



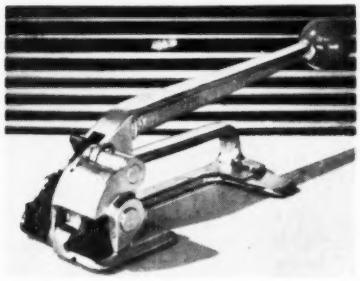
New Denman Products

Production of new white plastic drop box and loop pickers has been announced by the Denman Textile Division of The McCandless Corp. According to Wilson B. McCandless, president of the parent company, months of research and field testing have been put into the new pickers. They are said to yield many times the wear expected from the conventional rubberized fabric type.

McCandless also announced production of molded nylon replaceable bearings for box pickers. It is said that worn bearings may be replaced in a matter of seconds with no tools required. This new spindle rod bearing, according to McCandles, means many additional months of service may be expected from the box pickers. *For further information write the editors.*

Better Strapping Tool

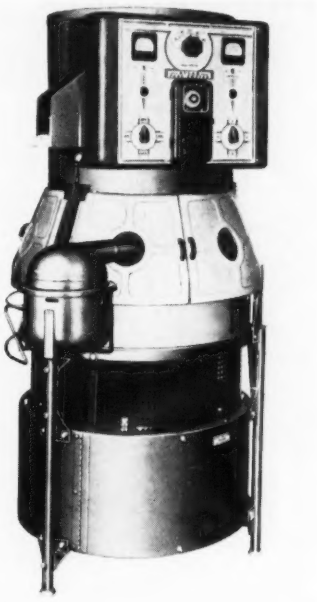
An unlimited take-up steel strapping tool said to possess unusual versatility is now being marketed by Stanley Steel Strapping, division of The Stanley Works, New Britain, Conn. The new Stanley "O" tightener is light weight and sturdy and is said to be highly efficient as a manually-operated tool for tensioning steel strapping. It has been engineered to require fewer strokes and to operate easily thus reducing operator fatigue.



Two models are available, the "OL", (light duty) and "OM"(medium duty) for light and medium duty. Model Nos. "OL3", "OL4" and "OL5" take strap sizes $\frac{3}{8}$". $\frac{1}{2}$" and $\frac{5}{8}$" respectively. Model Nos. "OM5" and "OM6" take $\frac{5}{8}$" and $\frac{3}{4}$" respectively. *For further information write the editors.*

New Fade-Ometer

A new Fade-Ometer has been introduced by Atlas Electric Devices Co. Known as Model FDA-RC, the new Fade-Ometer is equipped with an electrically operated atomizer and cycle meter permitting it to be operated either under conditions simulating the cycling effect and high humidity conditions encountered in the daylight exposure method or under conditions which produce good correlation with the sunlight exposure method where the samples are exposed to sunlight between 9 a. m. and 3 p. m.



Fade-Ometers now in use can be converted into the Model FDA-RC by the addition of the new features. *For further information write the editors.*

Loom Check Strap

A new loom check strap, said to outlast conventional check straps more than three fold, has been announced by Extremultus, Inc. The new strap, made of a special material for the textile industry by the makers of Extremultus power transmission belting, is currently being used in four New England textile mills. *For further information write the editors.*

Improved Yarn Inspector

Lindly & Co., Inc., has announced that its Model 602 Multicontrol yarn inspector has achieved five long-desired objectives. These are, the company reports: real extension of phototube life; making it impossible to pass uninspected yarn due to failure of the phototube or the light source; increase in uniformity of sensitivity of detection of defects from one edge of the yarn sheet to the other; reduction of costs of both original equipment purchase and of maintenance, and reduction of warper down time. *For further information write the editors.*

Improved Rings

Kluttz Rings, Inc., is now offering its "black magic" rings which are hardened above 62 Rockwell C scale for maximum resistance to wear. The rings, said to have the shortest breaking-in period of any on the market today, are Lubri-Cased, a process for producing a "built-in dry lubrication." Actual mill tests have been performed at spindle speeds in excess of 15,000 rpm on two-inch rings, the company reports. *For further information write the editors.*

Fiber Pattern Discs

Wildman Jacquard Co. is now offering fiber pattern discs for use on the Hemphill half hose knitting machines. The fiber discs replace the steel pattern discs formerly in use, and will sell at about half price of the steel discs, the company said. *For further information write the editors.*

New Stretch Yarn Machine

Universal Winding Co. is now manufacturing Superloft Model 552, a new high-speed, false-twist machine for producing Superloft stretch yarn. The equipment is capable of operating at spindle speeds of 140,000 to 150,000 RPM. Stretch yarns produced during tests have been knitted to check quality, which has proven to be equal if not better than Superloft yarn produced on the 550 model machine or by the company's Fluflon process. Stretch yarn produced by the new model has also been satisfactorily modified to produce Saaba yarn.

Ring Twisting or Uptwisting . . . WHITIN has the Twister for you!

To provide precisely the right twister for maximum production, highest quality twisting, on the largest practical package to secure knot-free yarns, Whitin manufactures 49 models of ring and uptwisters. Whitin can supply the type and model most suitable for any twisting need for natural and synthetic fibers.

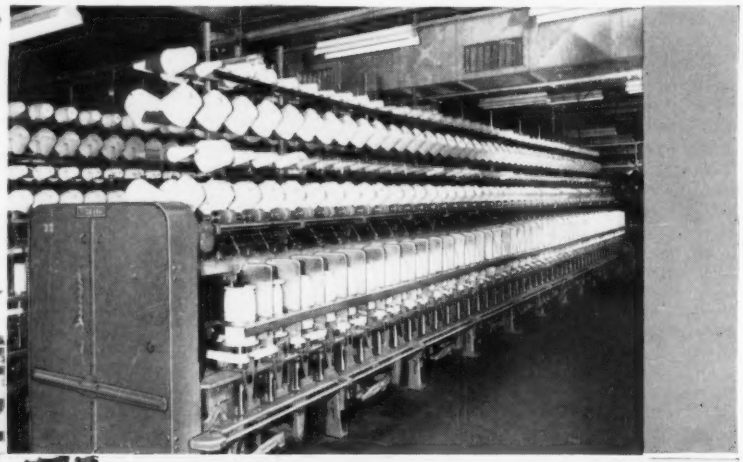
The machines illustrated here are widely used by leading mills in the production of coarse yarns for carpets and tufted rugs; they have also made outstanding records in the tire cord and paper yarn industries. All Whitin Twisters and accessory machines are advanced in design, rigid in construction and precision built.

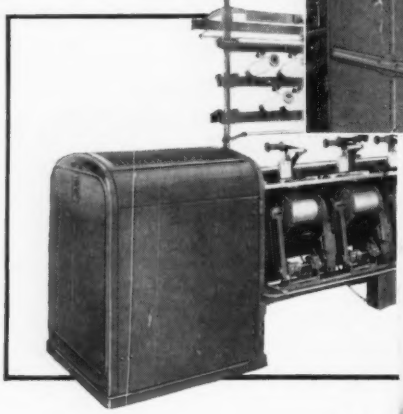
COMMODORE* RING TWISTER

For wet or dry twisting, the Commodore is available in gauges from 7" - 10", with rings ranging from 5½" - 8½" and, normally, with 92 or more spindles. Package weights are from 7.0 - 11.0 lbs. of knot-free plied yarn.

SPOOLMATIC* REDRAW DOUBLER with Electronic Slub Detectors

For winding one, two or more ends at 100 - 300 yds./min., package up to 9.0 lbs. This machine provides new scope for tufted rug or carpet yarns. Exclusive electronic slub detectors stop each winding position for end break, run out, etc.





CABLE-KING* UPTWISTER

Produces several types of take-up packages: headless, parallel-wound on paper tube; straight spool wind on double head bobbin; or cone wound on paper tube. Packages up to 9.0 lbs. and speeds up to 5250 RPM. Ideal for cabling nylon tire cord and other heavy industrial yarns.

Whitin CABLE-KING UPTWISTER is available in lengths of 60 - 120 spindles, 11" gauge.

*Trade mark

For complete information, ask your Whitin representative — or write direct to us.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • GREENSBORO, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

British device cuts card room fly

HINGED AND TRANSPARENT—The deflector shields are transparent so that operator can inspect card web easily. They swing upward on a hinge to allow operator access to web.

By F. C. Livingstone

AFTER 20 YEARS intensive research, the Shirley Institute of the British Cotton Industry Research Association has perfected a pressure point system for the extraction of dust in card rooms. This new system not only practically eliminates all fly from the machines, giving an extremely high degree of cleanliness of atmosphere, but also offers a remedy to byssinosis—the disease often found with cotton mill operatives.

The problem which has now been solved became an urgent one in 1937, when the British Government brought in a new Factories Act which demanded the introduction of exhaust equipment in all plants where dust, fumes or other impurities were offensive to workers. Years of research followed and the Shirley Dust Hood, as it is popularly called, has been the result. After exhaustive tests in one Lancashire mill, the Chief Inspector of Factories issued a detailed report recommending its use in all cotton mills.

The Shirley Dust Hood has been designed on the following principle: A close study of the action of carding machines showed that it was possible to collect at the source most of the dust which would otherwise be liberated into the card room atmosphere, and also that the action of the card itself could be used to carry the dust to points from which it could easily be removed.

The carding machine consists essentially of three rapidly rotating cylinders which, in addition to their main functions, act as fans and carry round considerable amounts of air. As a result, zones of high and low pressure are formed in the card. The air escaping into the atmosphere from the high pressure zones carries dust with it and is responsible for most of the contamination of the card room.

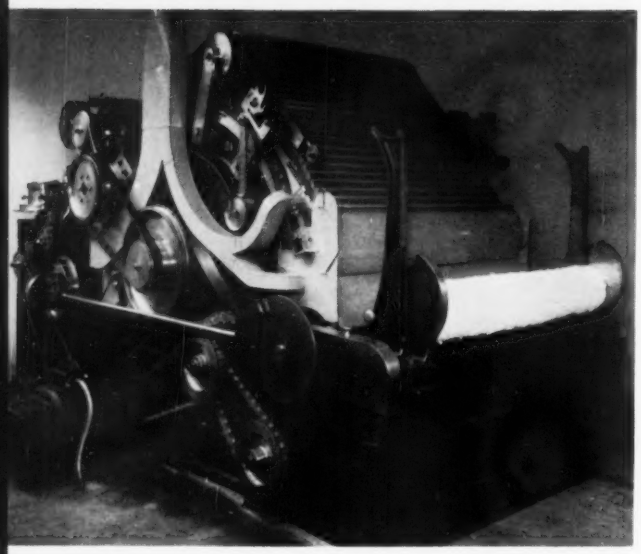
The Shirley Dust Hood has been designed to relieve the high pressure zones and so to remove most of the dust which would otherwise be liberated. By means of deflector sheets which concentrate relief at the required points the need to exhaust air at a great rate is overcome.

The air is exhausted from three points: the region around the junction of the card and doffer cylinder, above the taker-in, and between the flats.

The fly swept into the air by the action of the flat cleaning brush depends on the speed of the brush and may be reduced by using a slowly rotating brush. The fly from this source is collected by a sheet of perforated metal which holds the fly but allows air to pass through it. This perforated screen has three counter-balance weights so as to hold the screen as close to the brush as possible. The screen is hinged so that it can be swung away to allow the accumulation of flat strips to be removed. A piece of perforated metal in the form of an open-side box is also used on the top of the coiler. This deflects and traps the fly liberated as the sliver enters the trumpet on the coiler.

The deflector shields that keep the dust liberated by the doffer comb and calender rollers within the fanning action of the doffer are transparent, so that the carding can be inspected readily at any time. These deflector shields are hinged so that piecing-up, stripping and grinding can be done without removing them from the card. The region under the calender rollers has been completely boxed in. This is to collect the fly that would otherwise fall to the floor from the underside of the web and prevent it being blown about by drafts. A door is provided for cleaning purposes.

The high pressure generated between the card cylinder and the taker-in end of the flats produced both tangential and radial airflow. The radial part is dealt with by completely boxing-in the taker-in end of the flats down to the taker-in beater cover and exhausting air from one end.



OVERALL VIEW—This photo shows the main ducting and hooding of the Shirley pressure point dust removing system.

The tangential airflow is restricted by inserting a flexible metal sheet between the flats. This sheet passes over the first block-shaft and then rests on the inside of those flats passing over the flexible bend for about two-thirds of the distance from the front to back.

The small air space formed at the take-in end of the flats is shielded by two side pieces which also hold the metal sheet in position. Air is exhausted through one of these side pieces to relieve the pressure inside. Since the side piece is flexible, it is not necessary to remove this sheet for setting the flats and it can be lifted to allow adjustments to be made.

The portion of the deflector plate over the calender rollers can be hinged backwards to allow the card tenter to piece-up the web. Vacuum stripping of the cylinder and doffer simultaneously can be performed without touching the hood in any way. An adjustable jockey pulley is used so that the belt from the card cylinder to the doffer does not touch the air duct. The card can be brush-stripped in a similar way.

The Chief Inspector of Factories' report details results of the extensive tests and states that the installation does not hamper operatives during carding, grinding or stripping.

The development of this machine for the commercial tests (carried out at the Monarch Mill, Royton, Lancashire, Eng.) was made by Hamilton (Rochdale) Ltd. in conjunction with the Shirley Institute of the British Cotton Industry Research Association, and Hamilton has been granted the first license to put the machine into commercial production.

Shirley Developments Ltd., which handles the commercial application of all British Cotton Industry Research Association research work is now negotiating licenses with other textile machinery makers, who will have to produce a trial installation for approval before they are allowed to start full scale manufacture.

The Shirley Dust Hood is covered by British Patent No. 762,403. The inventor of it was Frank Brownsett, of British Cotton Industry Research Association. *For further information about this development write the editors.*

Hosiery Finishing

(Continued from Page 24)

dyeing; when compared with water use with the two-bath method of hosiery finishing, water consumption is reduced 65%.

With regard to steam, Koehlert reports "considerable savings." A smaller boiler is permitted, and much of the complicated and expensive dye house plumbing can be eliminated in installations of the Turbo-Brewin Machine. In this connection Turbo Machine Co., maker of the machine, points out that the unit, with its simplified operation, reduced floor space and economies in steam consumption, opens the way for hosiery mills that do not have their own dye houses to install such a department.

The Turbo-Brewin Machine operates on the batch principle with accurate duplication of dyeing conditions from cycle to cycle. This has been accomplished by positive measurement of the dye solution, accurate temperature duplication and time control. The machine is essentially an enclosed chamber operating under temperatures in the area of 240°F. At this temperature, dye liquor is sprayed on the stockings on boarding forms. The dye concentrate used contains dye, detergent, resin finish and a lubricant to facilitate removal of the stocking from the boarding form.

The dye liquor circulates through the system once every five seconds. The actual processing time is four minutes. The pressure of 24 pounds per square inch is then evacuated and drying is achieved with hot air at 240°F. The complete dyeing and drying cycle is completed in eight minutes.

Each machine is reported to have a capacity of 140 dozen pairs every eight hours when equipped with a newly developed device for automatically raising and lowering the boarding forms for stripping and boarding. Although the two machines now in use at Picolet are not so equipped, the automatic device will be installed on two additional machines now on order. Turbo states that all machines built in the future will be equipped with the automatic form motion. *For further information about the Turbo-Brewin machine readers are invited to write the editors.*

Japanese Polyurea Fiber

Interest in the manufacturing rights to polyurea fiber developed by Toyo Koatsu Industries, Ltd., Japanese firm, are being sought by American firms, including American Cyanamid Co. The Japanese firm, largest producer in that country of nitrogenous fertilizer, is manufacturing "Urylon" filament yarn on a pilot plant basis of about one ton daily capacity at Sunagawa Hokkaido in Japan. The basic raw material is said to be oils derived from rice, whale blubber and waste liquor from paper pulp manufacture. The fiber has a low specific gravity, and high tensile strength wet or dry.

J. Harold Lineberger

(Continued from Page 20)

cided that a local yarn mill would be a profitable venture. And so with five relatives and friends each chipping in $1,000 for a total capital of $6,000, he built on land he owned on the south fork of the Cawtawba River a small mill that was known for years as the Wood Lawn Factory. Much of the actual labor of constructing the mill was done by the six partners with their own hands. The machinery came from England, then the great source of textile skill and textile equipment. It was brought by ship to Charleston and moved to Branchville, S. C. by one of the earliest steam railroads built in the United States. From Branchville it was freighted to the plant site by cumbersome wagons drawn by mules.

Finally completed and equipped with 600 spindles, the Wood Lawn Factory spun its first yarn in the summer of 1848. Almost from the beginning it was known to its employees and to neighborhood people as the Pinhook Mill—some say because its workers in their spare moments fished from its windows in the muddy waters of the mill race with bent pins as fishhooks.

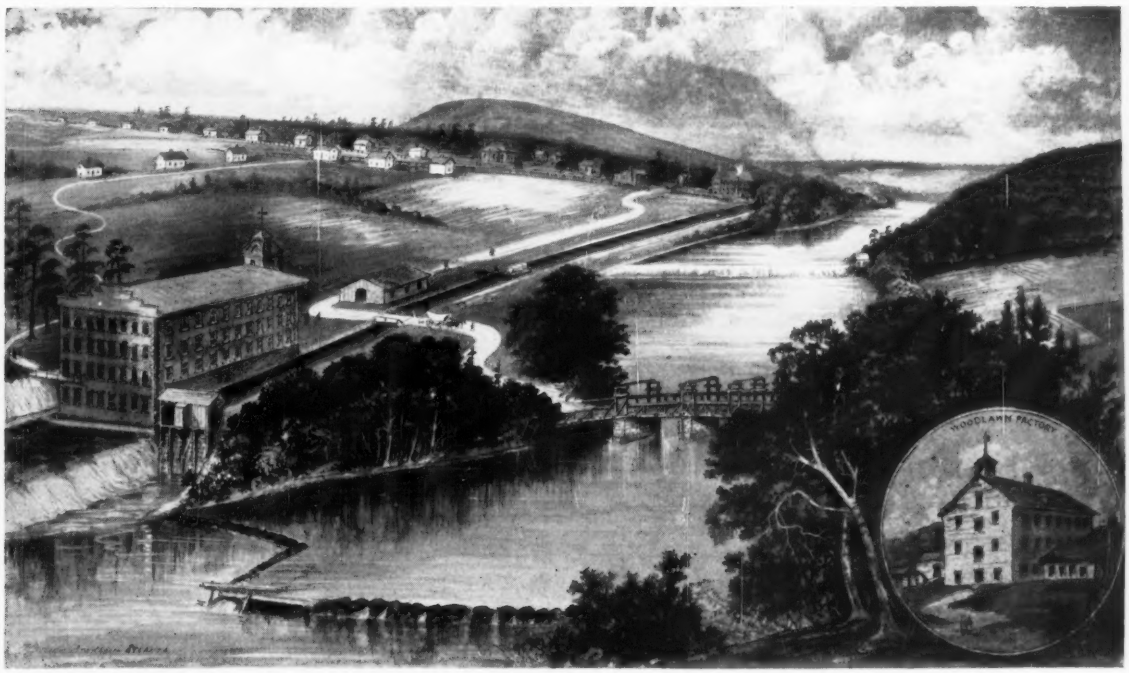
The little Pinhook Mill found a ready market for its cotton yarns. Farmers throughout North Carolina bought them in balls to use as warps on home looms in weaving fabrics with filling yarns spun from wool sheared from their own sheep. As part of the mill operation a general store was conducted by J. Laban Lineberger, a brother of the chief factotum, Caleb J. Lineberger. As late as 1880, according to the recollections of one old mill worker interviewed in 1949 by the late David Clark of Charlotte (who wrote an interesting little booklet on the mill's earliest days) mill workers earned about 50 cents for a 13 hour day. There was a catch, however, attached to these munificent wages: they were not paid in U. S. currency but in "Lineberger money" in the form of cardboard coupons redeemable at the company store for food and other necessities.

The little Pinhook Mill and another structure built somewhat later down river from it by Caleb Lineberger and his associates and known as the Lawrence Mill (after the then great cotton manufacturing center, Lawrence, Mass.) struggled along for a number of years through crushingly bad times of post Civil War reconstruction days.

In time, these difficulties augmented by a fire that destroyed the Lawrence Mill, brought these early Lineberger textile ventures to an end. But before they ceased to operate, Caleb Lineberger's son, the late Abel C. Lineberger, who had been born in 1857, got his first experience in yarn manufacturing within their wooden walls. From the Pinhook Mill, young Lineberger went to work at the Tuckaseegee Mfg. Co. in Mount Holly, N. C.

From this beginning, in partnership with two able businessmen, the brothers R. L. and S. T. Stowe, A. C. Lineberger spent a long and increasingly successful life as a builder and operator of fine yarn mills in North Carolina. When he died in 1947, at the age of 90, he was president of Acme Spining Co., and 11 additional spinning mills, mustering all told as many as 250,000 spindles. In the eulogies published in North Carolina newspapers at his death, he was fittingly spoken of as the father of North Carolina's combed yarn industry.

With such a grandfather and such a father, it was easy, virtually inevitable, for Harold Lineberger to become absorbed in yarn manufacturing. If it could be said of anyone, it can be said of him that the trade of textiles is in his blood. In 1929, after capping his



THE WAY IT USED TO BE—This drawing made before the Civil War by a forgotten artist shows the old Pinhook Mill or Woodlawn Factory, is it was also called (upper right and inset) and the Lawrence Mill at the lower left. Located on the South Fork River near McAdenville in North Carolina, both mills were built by a group of men headed by the grandfather of J. Harold Lineberger.

studies at the University of North Carolina with a master's degree in busines administration at Harvard, he went to work at Acme as a shipping clerk. In 1943, he took full charge of the mill's manufacturing and selling operation.

Under his leadership, Acme with 38,000 spindles and 375 workers—by no means a large spinning operation—demonstrated that mere size or volume of output is not necessary for success in highly competitive sales yarn business. Flexibility and up-to-the-minute modernity of operation plus an unrelaxing insistence on high quality output, makes Acme a profitable operation, and a happy place to work not only for Harold Lineberger but for all his mill's employees down to the newest young fellow hired to push a broom down the shiningly clean aisles of the mill's two buildings.

Acme produces combed cotton sales yarn from 16s to 60s, singles and plied, for both knitting and weaving. Relatively small lots, quick deliveries and any kind of put-up the customer may want are some of the secrets of Acme's staunch ability to compete with the big volume producers.

Perhaps the basic principles under which Acme operates are best summed up by Harold Lineberger himself. "We have tried," he says, "to make the best quality yarn and to improve continually our machinery for doing so. We give special attention to the selection of our cotton—this element of our way of doing things, we think, is tremendously important. And then, when we are sure that we have turned out the best yarn that can be made, we try to sell it in an intelligent and friendly way."

Intelligence and friendliness sum up the Acme operation and the character of Harold Lineberger—a man who represents the most admirable kind of southern "on-the-job" personal mill management, resulting in a cleanly modern, tight, shipshape mill, earning profits for its owners, providing fair and stable employment of its workers and virtually perfect yarns for knitters and weavers, and eventually the consumers who buy textile products throughout the United States. The textile industry can be proud of men like Harold Lineberger and the mills they operate. It is to be hoped that his kind of management will prosper and remain, in the years to come, as an important part of our overall industry picture.

More Kenaf Predicted

Production of kenaf, a tropical fiber that is expected to compete for the multi-million dollar world jute market, is on the verge of a break-through as the western hemisphere's newest industry, according to North Atlantic Kenaf Corp. Kenaf is a soft vegetable fiber similar to jute. It comes from the stalk of a fast-growing, hollyhock-like plant called "hibiscus cannibus" which can be grown in almost any tropical or subtropical climate. Kenaf is not only a substitute for jute but in some applications is even better, according to North Atlantic.

Major markets for kenaf, which can be spun on standard jute machinery, include cotton, wool and tobacco coverings, burlap, thermo and accoustical barrier materials; sugar, coffee, rice, grain, potato and fertilizer bags; ropes, cordage, postal twine, carpet and linoleum backing, and reinforcement and binder for molded plastics.

Research and development center of the embryonic kenaf industry is in Cuba, where U. S. and Cuban Government researchers are working together with private industry to promote the fiber as part of Cuba's program of industrial and agricultural diversification. *For further information write the editors.*

Fiberglas Dyed Yarns

Fiberglas Coro-dyed yarns, in 11 "Horizon Tone" colors, were recently introduced by Owens-Corning Fiberglas Corp. For the first time color can be applied to these yarns, prior to weaving, to help create new designs and multi-color effects not attainable in standard piece-dyeing or printing of casement and drapery fabrics. Heretofore, Fiberglas fabrics were either dyed a solid color or printed following the weaving process.

Fabric stylists offering fabrics with the new Coro-dyed yarns include Jack Lenor Larsen, Knoll Textiles, Isabel Scott Fabrics, Marie Nichols Fabrics, and Lozano-Fisher Studios.

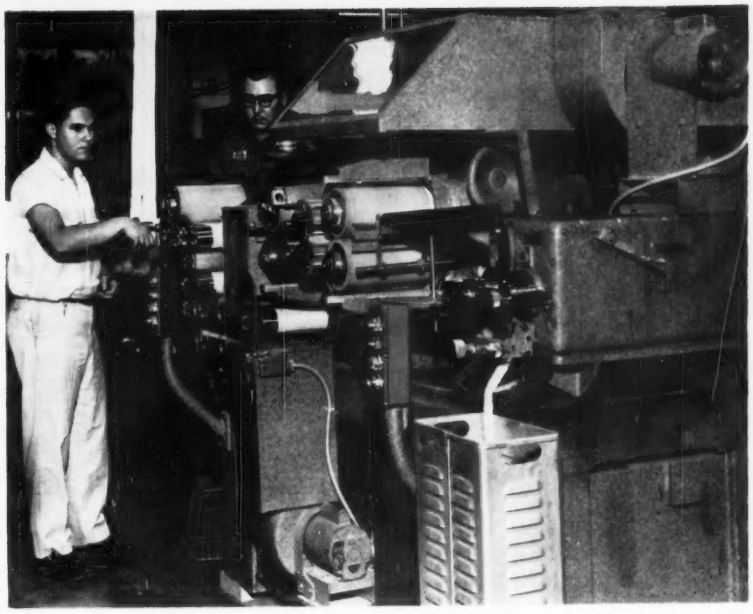
Minimum standards and physical properties of Fiberglas Coro-dyed yarn fabrics are the same, the company reported, as have been established for piece-dyed Fiberglas fabrics, thus assuring consumers of continued dependable performance. The colors produced have good lightfast qualities and can withstand the 1400 degrees F temperature to which all Fiberglas decorative fabrics are subjected during the Coronizing process. This process both sets the weave and "fires" the dye to the fabrics.

Celanese Model House

Celanese Corp.'s unusual house nearing completion outside New Canaan, Conn., is intended as a showcase for all types of home furnishing fabrics woven from the firm's fibers. Used in its construction are many building materials and furnishings employing ingredients manufactured by Celanese's Chemicals Division and Plastics Division.

All decorative fabrics employed in the interior of "the Celanese House" will be specially woven and printed for the project as one phase of the firm's "The American Idea" promotion, due for introduction in retail stores this fall. *For further information write the editors.*

Architect's drawing of "The Celanese House"



LEARNING BY DOING—Students at the School of Textiles, North Carolina State College, Raleigh, N. C., learn how to make the adjustments on the Turbo Stapler necessary to regulate the degree of heat-stretch, control the degree of crimp and staple length in processing manmade fiber tow.

Better Card Binder Pulley

Saco-Lowell now offers for its cards a new anti-friction binder pulley which replaces the plain bearing style. The new binder pulley is composed of a standard adapter type (wide inner ring) ball bearing and a new stand and stud. According to Saco-Lowell the new anti-friction bearing will outlast bronze bearings many times. Because it requires extremely infrequent replacement, the new binder pulley is said to cost far less in the long run than the continual expense of replacing bronze bushings at frequent intervals.

A major advantage of the new anti-friction unit is that the problem of oil seepage is completely eliminated. *For further information write the editors.*

Improved Sweater Knitter

Scott & Williams has redesigned its single purpose high speed model MFRC to produce the European style sweater with a French welt cuff and rib body. The redesigned machine, known as model MFRC/-FWC, is said to be the only high speed machine available in this country to produce this fabric.

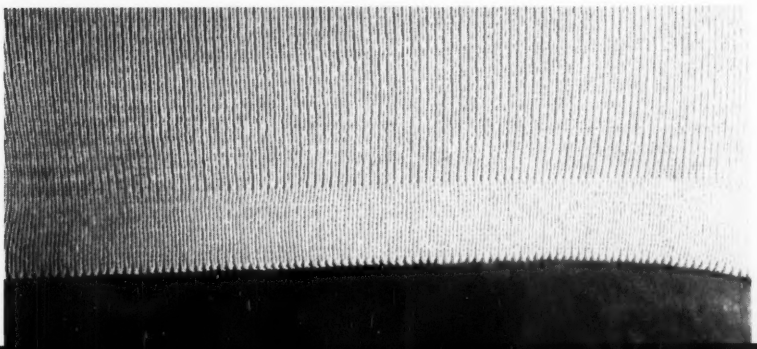
The new model also can produce the rib bottom with interlock body. The needle cut for the French welt cuff setup will be from 10 to 14 needles per inch. Production figures for the new sweater blank have been placed at 23.5 to 30 blanks per hour depending on the number of courses desired in the body and cuff of the sweater. The cuff construction consists of two individually knit jersey fabrics tied together at the bottom by a selvage and at the top by the start of the rib fabric.

The new blank consists of a nylon press-off draw thread, 1 x 1 make up, French welt cuff of approximately $\frac{1}{4}$-inch minimum to infinite length, rib 1 x 1 body top of about $\frac{1}{2}$-inch minimum to infinite length and six courses of dial and cylinder welt for anti-ravel. The machine can handle natural or synthetic yarns.

The MFFWC will be manufactured and tested to produce the French welt cuff but will be convertible to the MFRC model for the knitting of interlock sweaters. This model will be less expensive than the MFRC/FWC as units and parts for the interlock will not be sent with the machine. The additional parts can be purchased later for conversion to interlock.

The MFRC/FWC model is now in production and short delivery in limited quantities is being quoted. *For further information write the editors.*

Illustration showing sweater fabric produced on Scott & Williams' redesigned Model MFRC high speed knitting machine.



Dye Jig Unit

A specially constructed dye jig unit for counting the number of reversals "ends" on dye jigs is being offered by Trumeter Co. Ltd.

Driven by one of the rollers, it counts and indicates "one" for each "end" of the cloth passing through the jig. It is so constructed, the manufacturer reports, that it will not indicate until the full length of the cloth has passed through. In addition to giving the operator the exact number of reversals, it is useful where bonus schemes are in operation, as it is both tamper-proof and fool-proof. *For further information write the editors.*

Web Tension Control

Mount Hope Machinery Co. has announced its new automatic tension control, which is said to maintain constant tension in web leaving the unwinding roll, regulate it through other processing, and control tension in web running to the winder. *For bulletin describing the new equipment write the editors.*

TEXTILE NEWS

World Wide

JAPAN'S TEXTILE INDUSTRY is having an increasingly heavy impact on the textile trade throughout the world. While the United States is having its problems over Japanese export controls on textiles, other countries are facing these worries:

India, which has one of 13 cotton spindles and 9 of 100 cotton looms inactive, is concerned about the effect of Nigeria's ending of import curbs on Japanese textiles. Indian mills have always found a good market in Nigeria.

The UK told Japan that too many textiles made in Japan are entering foreign trade channels without being marked as to country of origin. Japan is studying the complaint.

The Benelux countries (Holland, Belgium and Luxembourg) are reported set to impose controls on imports of Japanese rayon, cotton and wool goods.

And Japan, in response to Canadian requests, is placing spun rayon apparel under export curbs to that country starting this month.

JAPANESE MILL MEN began laying up 15% of their cotton spindles this month in a move to cope with excess capacity. Exporters of men's suits, meanwhile, are optimistic about the U. S. market and for wool goods generally.

GERMAN TEXTILE MAKERS will be able to borrow at 5%, as compared with the going rate of 6½% under a special directive of the Bonn Economics and Finance Ministries. The funds are available to several industries from the old ECA counterpart authorizations.

BRITAIN'S IMPERIAL CHEMICAL INDUSTRIES began marketing spun dyed polyester staple fiber worldwide. The spun dyed black staple, 4-denier was priced at 150d (about $1.65) a pound.

MONSANTO CHEMICALS, LTD. is planning to raise output of styrene plastics, phtalic and maleic anhydrides in Britain during 1959.

MORE ACRYLIC FIBER FOR JAPAN is in the offing. Farben Fabriken Bayer has licensed a new Japanese firm to produce acrylic staple.

Four Japanese chemical and textile concerns will back the new company. Japan has been manufacturing acrylic fibers under agreement with American Cyanamid and Chemstrand.

A "NEW" CELLULOSIC FIBER family, reportedly quite different from conventional rayon, was announced at Lyon by the French Compagnie Industrielle des Textiles Artificiels et Synthetiques (CTA). The new product stems from Japan's high tenacity viscose rayon staple, Z54, which was launched by CTA along with Belgium's Fabelta, the Swiss Viscose company and Tachikawa Laboratories.

BRITAIN SENDS RUSSIA a 6-mile rubber coated Terylene conveyor belt for use in a Soviet iron ore field. B.T.R. Industries was said to have received £300,000 (about $840,000) for the belt, said to be the first use of a 100% Terylene fabric in a major conveyor system.

RUSSIA GIVES BRITISH textile equipment firm, Bentley Engineering Group an order for two knit goods plants. The factories will make artificial fur pile fabrics.

SWITZERLAND WAS SELECTED by American Cyanamid as the country where it will construct a $1 million research center. U. S. technicians will visit the new plant, to be located at Geneva, but work will be carried on entirely by Europeans.

THE BRITISH NAVY has begun using a nylon emergency net to halt jet aircraft when the normal hook-stop landings on aircraft carriers are impossible.

SOUTH AFRICA ANNOUNCED plans to launch a vast natural fiber development program. The union government, which produces less than 3,000 metric tons of fibers—as against its 60,000-ton annual requirements, will push output of sisal, New Zealand hemp and Mauritius hemp.

BRAZIL'S HARD-PRESSED textile manufacturers are trying to get the government to lower credit terms. The Textile Manufacurers Association said costs doubled in the past three years but Banco do Brasil's credit limits became even tighter. Private bank help is said to be insufficient.

RUSSIA IS SUPPLYING EGYPT with textile equipment under a trade agreement even though relations between them continue strained. A new cotton spinning mill at Damietta was cited by the Russian press as receiving Soviet machinery.

PAPERS OF THE
AMERICAN ASSOCIATION FOR TEXTILE TECHNOLOGY INC.®

AATT

What consumers want in MANMADE FIBER CARPETS

Homemakers are confused and uncertain about the new fibers in carpets. Here's what should be done to clear up their doubts and make them eager buyers

By Thomas W. Bresnahan

THE STORY of the new carpets that have come on the market in the past few years is not getting through to women. The industry should sell the brilliant new carpet treatments of new weaves, fibers, and colors the way other postwar changes have been marketed. Women shoppers today are taking in stride the revolution in marketing—premixed foodstuffs in grocery stores, all kinds of plastics, revolutionary new antibiotics, vitamins, drugs, modern hairdos, cosmetics. But she's uncertain about the new carpets.

She knows her way around in the supermarkets and the drug stores because she's there every day. She knows about fibers and other new inventions from the world of chemistry, but carpets are an infrequent buy, so she looks for help. Women sense that they are part of a great experiment and they rather like it. But, they resent two things:

1. Why don't they get more help in the store?
2. Why did that salesman have to promise too much?

Mrs. Consumer looks on these new fibers as the "wonder drugs" of rugs and carpets and expects them to be the latest and best thing for her home. At the recent markets in Chicago, New York, High Point, California I saw these new fibers in the lines of more than three dozen manufacturers. Excellent fibers. Excellent carpets.

Where we once had one fiber, wool, we now have many.

And, by the way, this is as good a time as any to mention that women have not counted wool out as a carpet fiber. Wool is still in first place, and accounts for *nearly as much carpet production as all others put together.*

Women tell McCall's they like new carpets— in fact they love them. Wall-to-wall carpet especially. They have told us plenty about floor coverings, what they like, what they don't like—and what information they want. For one thing, they want to know a great deal more about synthetics. Synthetics! That's what they call them, synthetics. They don't seem to back away from the word. They don't say manmade, science fiber. No, synthetics is what they call them—and, based on what they know of them, they *don't trust them.* They want to like them, but they are afraid of them, chiefly because the promise has often been bigger than the performance.

Fiber producers are spending big money to talk to women, but the carpet manufacturer is almost silent. He spends less than half a penny of his sales to tell women that the new carpets wear well, that there are new colors and patterns and textures made possible by new dyes, new fibers, new weaving methods.

Last year, the carpet mills spent about $3 million all

Mr. Bresnahan is the special representative of McCall's Magazine in the field of home furnishings. A familiar figure at all the regional carpet markets, he is also editor of two special retail trade magazines published by McCall's— Floor Covering Buyers' Pocket Letter and Furniture & Bedding Buyers' Pocket Letter. Recently he has been touring the country speaking to floor covering clubs on "New Fibers in Floor Coverings."

Thomas W. Bresnahan

Paper presented at the March 4th, 1959 meeting of the American Association for Textile Technology, Inc. at New York, N. Y.

told to advertise $650 million dollars worth of carpet, less than one half of one per cent. And a third of this was the carpet Institute's "Home Means More" campaign. The fiber producers invested ten million dollars to promote their new carpet-fibers. The retailers carried the big load, spending about $15 million in newspapers in 1958.

How regretful it is that the retail store's big chunk of advertising money went almost entirely for comparative price type advertising. You know, "originally $15.99 a square yard—our price, $8.88." This may be a good device for getting people into the store. But it doesn't do much to get the message of the new carpets and the new fibers through to the women who want to know. I have no quarrel with the retailer here—it's his job to get them into the store, to let the women know he has the carpets. But he fails to interpret them correctly to a public eager to know all about them.

Opportunity Knocks for Manmades

This business of a new carpet fiber came to a head back in 1950-51 when certain conditions made the carpet industry take a second look at wool, its bread and butter fiber. Carpet wool has always come from abroad and world conditions had shrunk the number of countries sending us wool. The world sheep population had diminished and the demand for carpet from a prosperous public had grown.

Carpet wool skyrocketed from around 65¢ to the fantastic price of $2.65 in the world market. Then and there carpet mill owners decided to free themselves at least partly from wool. He looked for another source. The first steps were taken to encourage our great chemical industry to come up with a carpet fiber. The initial efforts of these hardy pioneers of the test-tube world in the early fifties left something to be desired. Called "miracle" fibers, they were promoted much too hard and too fast and the public backed away. As a delegate to McCall's Congress on Better Living said, "We were all stung once." She bought all-wool again.

But the mills and the suppliers kept on plugging away. By trial and error, step by step, learning from mistakes, they improved the product. They learned from their mistakes. And they're still learning, still improving. The perfect fiber is not here yet, not by a long shot, but the quest is on!

Two things that fiber producers and carpet makers should think about, it seems to me, are these: What do women want in carpet? What do carpet manufacturers want in a fiber? There are easy answers to both questions but real solutions are difficult.

Stated in simple terms, a woman wants a more beautiful and comfortable home. That's why she buys new carpet. And she doesn't mean carpet that is beautiful when it leaves the store, but carpet that keeps its original beauty a reasonable length of time under the normal wear of family living.

She doesn't care whether that carpet was tufted, woven, knitted, or hand crocheted so long as it prettifies her home. Nor does she care too much whether it's made from wool or cotton or some newfangled test tube material. She'll settle for someone's word she can trust that it's made of the right stuff for her purpose. She wants it to clean readily—better still, not to soil too easily. And she has to buy it within her budget.

Now what do the carpet mills want in a fiber? Usually they want the same things women want but they're more concerned with the specific. What will a fiber do? How does it handle in manufacture, and how will it stand up in the home? They know how wool performs, they know what cotton will do. They want fiber producers to be honest with them about new fiber, as they want to join the fiber producers in being honest with women who buy the carpet they make from their fiber.

The word *wear* is the word we talk most about, but it's a word that has two meanings to the carpet man. More than mere resistance to abrasion, it means the ability of a carpet to keep its original appearance. Resilience and crush recovery is expected of a carpet and this also means two things to a carpet man: what he calls immediate recovery and eventual or complete recovery. Wool and acrylics recover faster from crushing. Nylon makes a slower comeback but recovers more completely in the end. Neither cotton nor the cellulosic fibers have received prizes for their recovery power.

The carpet maker is all ears to hear how a new fiber will clean and, since color is still the number one salesman for carpet, he wants a fiber that will respond well to today's color demands. And he wants this new fiber to cost less than wool—which it doesn't today.

No carpet fiber today even begins to possess all the features which women—and carpet mills—seek in a carpet. But this doesn't stop the eager beavers in the trade from extravagantly claiming all these qualities for their fibers. Which brings us back to this matter of confusion.

Paul Jones of the American Carpet Institute tells us that research shows that it takes a woman 18 months to talk her husband into the decision to buy new carpet. Then let's not delay her purchase any longer by tossing roadblocks of confusion in her path when she reaches the store.

Four Specific Proposals

I suggest four things to do about it.

First, make sure the story of the new fibers and the new carpets gets through to women. The magazines, a great channel of approach to millions and millions of women, are ready to help. Newspapers can help. Scores of talented women's page editors with a following of daily readers will use your message to straighten out those millions of women who know that "home means more with carpet on the floor."

Properly used, the same TV set that makes women more aware of the appearance of their living rooms can tell them the story of the new carpets. Up to now the use of this medium has certainly made a spectacular success in the promotion of the fibers right up to the doorway of the store. But somehow the story has not got through to women.

Second, the story must be simplified. Women work their way every day through a maze of names of packaged detergents to the right shelf at the market, but they buy grocery products every day. And they give them the constant test of daily home use. A woman learns by switching from one to another, something she can't do with a carpet. She's seldom confused in a supermarket. But she buys a carpet only once every 12 to 15 years. Here she needs help.

Third, carpet mills and fiber producers must keep on improving the product. The first new fibers were often brought out in bad constructions and then extravagantly oversold. A good job is now being done, but it must be even better. Suddenly, a few years

ago, there appeared the spectacular new tufting method that has made it possible to make 400 to 500 yards of broadloom carpeting up to 15 foot widths in eight hours. Weaving costs have dropped in 15 years from about half a dollar to less than a dime a yard. Today $50,000 invested in a tufting loom and finishing equipment will turn out up to 300,000 yards of excellent broadloom a year.

And now we have the new raschel type loom that "knits" a carpet, back and all, with a speed somewhere between that of the tufting and traditional methods. (For a detailed report on raschel carpet knitting, see MTM, Aug.'58, p. 49)

One of the things women have shown they want, a small thing perhaps, but it illustrates, is the new extra scrim-back, called Permapad, for example, by the big mill where it first appeared. Women welcome this improvement, now in several tufted lines, because they say it makes their carpet lie flatter and keeps it from buckling.

No one can accuse the fiber producers of not trying constantly to improve the product. Rayon, the biggest volume manmade carpet fiber, has recovered from the effects of its early oversell by almost everyone in the trade, and now is scoring again with American Viscose Corp.'s Super-L, said to be 108% better than ordinary crimped rayon. This company's Avisco integrity tag is helping to de-confuse the consumer.

Du Pont has taken a giant step in helping the consumer with the issuance to carpet manufacturers of its new Carpet Rayon label. Chemstrand's marketing plan which demands adherence to strict quality controls from carpet manufacturers who use Acrilan is another. Celanese is proud enough of its name to license its Celaire fiber to a handful of carpet makers under rigid controls. All of these things are aimed at clearing up public confusion.

At the January market in Chicago, Du Pont introduced Carpet Nylon 501, a bulked continuous filament nylon now being offered in a couple of grades by two carpet manufacturers to a picked group of stores. Last week the carpet buyer for the big Lazarus store in Columbus, Ohio, told me that women rushed into his store and quickly bought his offering of 3,000 yards of carpet made from Nylon 501. It was easy to promote, he said.

At the same market three more fibers of this filament type appeared, Allied Chemical's Caprolan in the Croft line, Tycora in the Masland line, and Deering-Milliken's Agilon was said to be under wraps in the back room of another big mill.

Some people say this new texturized filament nylon may well be the carpet nylon of the future. It eliminates shedding and piling and should eventually give so much better coverage that the cost of the carpet will drop.

Fourth, the carpet industry, and that includes the weavers, tufters, knitters, retailers, and the big chemical companies, must try to present a more united front to the woman who buys the end product —that carpet that brings added beauty to her home.

Let each and every one stop selling fiber against fiber. Concentrate on telling this eager woman what she wants to hear: "Which carpet maintains its original beauty the longest?" When a salesman knocks one fiber to sell another, the woman buys neither.

That's the story. These new fibers are good. And these new carpets are good. It's up to us to find out what each fiber will do best and get the story through to the public. Women are smart and it's hard to fool them. They don't expect to get more than they pay for, but just let them know what to expect, good or bad.

SOME FACTS ABOUT CARPET FIBERS

By William Reynolds

FOR READERS not familiar with the background of carpet manufacture and in particular the fibers from which carpets and rugs are made, a few brief facts may help to bring them up to date. Wool has been the traditional fiber of carpet manufacture since antiquity. It formed the basis of the ancient Persian and Chinese hand-loomed rug industry and was the basic fiber of the English and Scottish industries. When carpet manufacture was developed in this country, wool quite naturally continued to be the principal, if not the only fiber used for surface yarns. As recently as 1950 for example, virtually all of the 86 million square yards of broadloom carpets and rugs produced in the United States were made of wool.

All the wool used in American carpet manufacture has always been imported, for carpet making requires coarse wools and none is grown in the United States. Traditionally, this wool has come from far-flung

Paper presented at the March 4th, 1959 meeting of the American Association for Textile Technology, Inc. at New York, N. Y.

Mr. Reynolds is both treasurer and economist for the American Carpet Institute. He joined the Institute in 1941 after taking his B.A. degree at William and Mary College and his master's degree in economics at New York University.

William Reynolds

sources of supply as Argentina, India, Pakistan, Scotland, New Zealand, Syria, Iraq and China where the wool is grown by native herdsmen in small flocks.

Carpet wool supplies however, are diminishing, for wool growing tends to become a marginal economic function when civilization approaches. In most of the countries just mentioned, carpet wool supplies are on the gradual downgrade as urbanization and industrialization increases. In some of these countries attempts are being made to upgrade the quality of the wool to make it finer for the apparel trades, which in turn makes it unsuitable for carpet manufacture. Also, with the outbreak of the Korean War, China was cut off as a raw material source. Just how important this was may be highlighted by the fact that during the 1920's and early 30's about half of the industry's wool supplies came from that source alone.

Thus we see that, while carpet production has been increasing, (it totaled 114 million square yards last year) wool supplies have been diminishing either through elimination of sources of supply or through natural causes. A little simple arithmetic shows that supply and demand can't meet. The fiber content of a square yard of carpet naturally varies with several factors, such as quality and weave. But if we use a rough average figure of about two pounds per square yard, it is obvious that the surface fiber needs of the industry today is about 215 to 225 million pounds per year and this total is expected to expand in the future. As a practical matter, however, there is probably not any more than 175 million pounds of carpet wool per year available to United States manufacturers. Long before this total was reached, I might add, the cost situation would be completely out of hand.

So with the supply situation ranging at about 175 million pounds and the demand in the neighborhood of about 225 million pounds, there is an absolute minimum gap of 50 pounds that has to be filled, and from a practical point of view, the actual poundage needed is much greater. This is where manmade fibers come into the picture. Since 1951 or 1952, fibers other than wool have assumed an increasing share of the market. Cotton came in with the growth of tufting, a brand new process of manufacture. This was closely followed by rayon nylon, then acrylics, until today we have many different fibers in use in varying quantities, and there are probably many more in the laboratory to come.

Virtually all of the 1950 broadloom output was produced from wool. Last year, the industry's 114 million square yards was produced from an estimated:

105	million	pounds	wool
60	"	"	cellulosic fibers
20	"	"	nylon
15	"	"	acrylics
15	"	"	cotton
215			

Some of these fibers have met with success, others have fallen by the wayside. Some fibers have not adapted themselves to carpet manufacture, others have been proven highly satisfactory. While this growth in the use of manmade fibers has presented the scientist with a new challenge, the marketing man with new markets and the carpet manufacturer with some relief from the violently fluctuating wool prices of the past, it has also brought confusion to the consumer.

Discussion

Following the presentation of Mr. Bresnahan's prepared talk, there was an open discussion period with questions submitted by members of the audience answered by the speaker. Mr. Reynolds served as moderator. The following is a brief summary of some of the questions.

EPHRAIM FREEMAN (R.H. Macy & Co.): You said that retailers fail to interpret carpets correctly to consumers; and this seems to put some sort of onus on the retailers for failing to do so. There may be a modicum of truth in what you say, but it seems to me that the responsibility rests primarily on the fiber producers and the carpet manufacturers.

BRESNAHAN: The problem really isn't quite the same with a great store like Macy's as it is in the thousands of stores throughout the country where a great many problems have arisen with consumers about what to buy and what not to buy because some of these stores' salesmen have been a little careless in their statements in their eagerness to make a sale. I haven't any particular retailer in mind, basically, but I do have in mind a great many stores. I'm sure that this does not answer your question completely. But I do believe that we are on the same side in this matter.

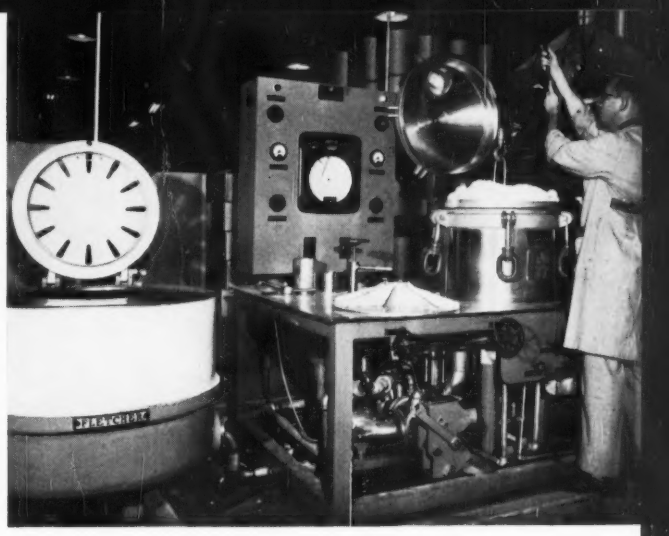
QUESTION: You mentioned that complaints have been received on various types of carpeting. What are the actual sources of these complaints?

BRESNAHAN: The records show that the greatest number of complaints by far are about poor wear, which is generally defined as poor abrasion resistance. When they complain of poor wearing qualities, consumers generally have in mind failure of the carpet to wear so that it preserves its original appearance and color.

New Geigy Charlotte Laboratory

Geigy Dyestuffs, division of Geigy Chemical Corp., with headquarters at Ardsley, N. Y., is building a new one-story, 60,000-square foot structure in Charlotte, N. C., to house a laboratory, new offices and warehouse. When the building is completed about July 1, Geigy will move from its present quarters on 528 W. 11th St., in Charlotte, which it has occupied for many years.

For the DYER and FINISHER



DYEING DARVAN—In the new development laboratory set up for Darvan nytrile fiber by B. F. Goodrich Chemical Co., equipment includes a 50 pound pressure kettle for both stock and package dyeing.

'Quilon' Chrome Complex

"Quilon" chrome complex is gaining wide acceptance in the textile industry both here and in Europe, according to Du Pont. Eighty to 90 spray rating (AATCC) can be obtained on wool, 90 rating on rayon and nylon, and a 100 rating on Dacron polyester fiber and Orlon acrylic fiber by treating the fabric with Quilon. The water repellency provided is said to have good permanency when dry cleaned, while its hydrophobic properties strongly resist wicking and water spotting by sensitive dyes. *For further information write the editors.*

Conditioning Agents

Complete specifications on the five groups of fatty nitrogen derivatives produced by the General Mills' Chemical Division are contained in newly-released literature. The characteristics of these cationic chemicals are said to make them beneficial as textile conditioners. *For copies write the editors.*

Orlon Dyeing Retarder

Ecco Retarder 0-42 has been developed by Eastern Color & Chemical Co. specifically for use in dyeing Orlon type 42 acrylic fibers with basic dyestuffs. The manufacturer, who recommends the retarder for best results in dyeing Orlon and blends in light shades and pastel colors, said other advantages are significant cost savings, level dyeing and superior even color depth.

Eastern also has developed Ecco Dacrol D, a Dacron dye carrier which produces even bright shades with good penetration and color depth. Stability of the emulsion at boiling temperatures assures even dyeing and no spotting, Eastern reported. Ecco Dacrol D is a cyclic aromatic Dacron dye carrier. It is a liquid, and can be easily handled and added to dye baths. *For free bulletins describing both products write the editors.*

Silicone Water-Repellents

Soluol Chemical Co. offers three new silicone water-repellents, each developed for a specific purpose. Aquagard-C is said to be the first commercially available silicone water-repellent for "pure finish" applications to cottons that is durable to both dry cleaning and laundering. Aquagard-LC is a low-temperature-curing repellent applicable with or without the use of resins, to synthetics, and blends of synthetics with natural fibers. The third, Aquagard-W, is for use on woolens, and is reported to require no curing. *For further information write the editors.*

Bulletin on Vinol CWS

A new bulletin for the textile industry on Vinol CWS, polyvinyl alcohol which can be dissolved in cold water, has been prepared by Colton Chemical Co., a division of Air Reduction Co. The bulletin summarizes results obtained in sizing Dacron/cotton yarn, and subsequent weaving tests conducted with the sized yarn. *For free copies of the bulletin write the editors.*

Nonionic Softener

All types of yarns and fabrics are reported to be given a finer finish by Lauravel SC, a nonionic softener produced by Laurel Soap Manufacturing Co. On cotton goods, it is reported to bestow a full-bodied softness, resist aging, and not alter shades nor yellow whites. Lauravel SC is stable in salt, Epsom salt, and acid-chrome finishing baths and may—under certain conditions—be used in one to two per cent salt solutions. The Laurel nonionic softener is said to be highly compatible with other finishing agents such as resins and dextrines. *For further information write the editors.*

Odor-Control Finish

Cyana Purifying Finish, said to be the first durable protection against the formation of body odors on fabrics, has been commercially unveiled by American Cyanamid Co. The new finish, the manufacturer reports, kills both types of bacteria that actually cause perspiration odor. Application patents for the new product were issued to the company last April.

The finish is used on five lines of men's wear. Women's wear applications, still in the sampling stage, are expected in time for 1959's hot-weather months.

Initial yardage treated with the Cyana finish is presently being offered to the needle trades by the Cohn-Hall-Marx Division of United Merchants and Manufacturers, Inc.

Elastomeric Latex

Dow Chemical Co. has developed a new elastomeric latex, based on vinyltoluene and butadiene, for use in the textile industry. Designated Dow Latex 2582, the new product is said to be especially suited for upholstery and rug backing, for modifying and sometimes replacing natural or chloroprene type latexes in resilient hair padding, and for nonwoven fabric binder and adhesives. *Copies of a technical bulletin describing Dow Latex 2582 may be obtained by writing the editors.*

Defoaming Agent

Nopco Chemical Co. has introduced Nopco KF-99, a new defoaming agent for use in textile operations. The product controls foam in dye, size, and scour baths, in bleach and boil-off solutions, and in latex and resin emulsions. It is a readily dispersible liquid. *Copies of a technical data bulletin describing the defoaming agent can be obtained by writing the editors.*

New Drapery Finish

A new finish which permits laundering of draperies through the complete automatic washing machine cycle has been developed by Burlington House Fabrics Co. The new finishing process will be applied to a new line of wash and hang, ready-made draperies available to consumers this spring. The new finish, "Burlux," is said to eliminate the necessity of dry cleaning. The customized ready-made draperies using the finish will retail from $9.98 and up. *For further information write the editors.*

ARNEL®

by Kenyon®

Identification assured

Ever since the inception of ARNEL, Kenyon finishing has been in complete conformance with the standards of the Celanese Corporation of America for this versatile fiber. We have delivered millions of yards to converters, and their customers have received millions of Arnel retail tags.

Your garments are assured all the benefits of a tie-in with the new Arnel Identification and Merchandising Program when you specify *Kenyon Finishing* to your converter of —

ARNEL and ARNEL-RAYON

PROSPECTOR · SHARKSKIN

BASKET-WEAVE

a Celanese contemporary fiber

"There is no Substitute FOR Arnel by Kenyon"

"KENYON OF KENYON, RHODE ISLAND"
Kenyon
THIS SYMBOL
Celanese®
ARNEL®
TRIACETATE FIBER
IS YOUR ASSURANCE THAT THIS FABRIC HAS BEEN TESTED AND HAS PASSED CELANESE STANDARDS OF QUALITY.

NEW YORK OFFICE
125 West 41st St.
Tel. OXford 5-2060
5-2061

THE Kenyon PIECE DYEWORKS INC.

"KENYON OF KENYON, RHODE ISLAND"

NEW FABRICS

NEW YARNS

Nylon Mooring Lines

The Military Sea Transport Service (Atlantic), following 22 months' test use of nylon mooring lines aboard a cargo and a passenger vessel, has reported definite advantages for nylon in durability and ease of handling, according to Du Pont. The MSTS has ordered 20 additional nylon lines for use aboard ships owned by MSTS but operated by private steamship firms. In test use, 5½-inch nylon lines replaced 8-inch manila ropes, and 6½-inch nylon lines replaced 10-inch manila ropes. Previous experience showed the manila line service to be from six to nine months. The nylon lines have already outlasted the manila ropes from two to three times. *For further information write the editors.*

Stain-Repellent Neckties

Neckties in 24 patterns and of six colors each, in rayon, rayon-acetate and wool blends, are reported to be protected against water and oil stains and common dirt. Available from Sweet Neckwear Co., the neckwear has been treated with Scotchgard brand stain-repeller, manufactured by the Chemical Division of Minnesota Mining and Manufacturing Co. The stain-repeller, which is also being applied to home furnishings fabrics, men's suits and slacks, and suede leather garments and shoes, in no way changes the original feel of a tie, according to the manufacturer. *For further information write the editors.*

Vinyl Sound Absorber

Cordo Chemical Corp. has introduced "Coustifab", a new type of vinyl plastic coated fabric designed to absorb low frequency engine sounds. The new product consists of either cotton or fiberglass fabric specially treated with a vinyl plastisol containing powdered lead. The coating's flexibility is based on Geon polyvinyl resins supplied by B. F. Goodrich Chemical Co. While originally developed for the sound proofing of jet airliners, the unusual properties of the new fabric suggest its application as sound dampener for office machines, as material for lightweight aprons and wall coverings, and for radiation protection in X-ray rooms. *For further information write the editors.*

All-Wool Nonwoven Suedes

Felters Co. has introduced "Woolsuede," a new line of all-wool nonwoven suedes for use as wall covering, upholstery, draperies, table covers and bedspreads. The complete line features Geigy's durable mothproofer Mitin treatment which is said to provide lasting protection against possible damage from moth and beetle larvae. The all-wool fabrics come in 35 colors. The wall covering fabric comes with a paper backing for easy installation with regular wallpaper paste. *For further information write the editors.*

Cotton-Nylon Underwear

Knit cotton underwear "fortified" with 20% Du Pont 420 nylon is gaining good consumer acceptance, according to a survey conducted by the company. Seventy-nine per cent of those interviewed stated the fortified underwear proved more durable. Other features noted were: comfortable fit, shape retention, and softness. Fortified underwear is manufactured by Coopers, Inc., Manhattan Shirt Co., and Munsingwear, Inc. Robert Reis also plans to introduce the blend. *For further information write the editors.*

Plan Now for Fiber Labeling

It is not too early for textile distributors and mills to prepare for observing the provisions of the new Textile Fiber Products Identification Act which becomes effective March 3, 1960. Rules for the enforcement of the act will be issued in final form by the Federal Trade Commission next month. In a recent bulletin, the Textile Distributors Institute cautioned:

The labeling law becomes effective March 3, 1960. It seems reasonably certain that any inventory which you may have on hand on that date must be labeled in accordance with the new law, and you must have all the records pertaining to such fabric as may be called for by the FTC's rules.

Furthermore, the law will be applicable to inventory which your customers have on hand March 3, 1960, and which they acquired from you. Accordingly, it is the recommendation of TDI that members start complying with the law as soon as possible.

In other words, if you have on hand any inventory which you may not have disposed of by March 3, 1960, you should now request the mill which furnished you the gray goods to give you the percentage of fiber content and other information you will need concerning this fabric. Also, it is suggested that on all gray goods contracts which you place with the mill from now on, you should request that the fiber content appear on the contracts. Furthermore, if you have to place any orders in the near future for a new supply of hang tags or lables, it is suggested that you keep in mind the requirements of the Act with respect thereto.

TDI Joins Merged Arbitration Groups

The Textile Distributors Institute has become a member of the General Arbitration Council of the Textile Industry which was recently merged with the Arbitration Bureau of the former National Federation of Textiles. Walter Ross of Rosewood Fabrics, Inc., chairman of the board and past president of the Institute, has been appointed a member of the standing committee of the General Arbitration Council.

Since the merger of the National Federation of Textiles with the American Cotton Manufacturers Institute last year, the Arbitration Bureau of the former group was continued by the ACMI. Consolidation of the Arbitration Bureau with the General Arbitration Council was effected following the adoption by ACMI's board of directors at the Institute's annual meeting in March of a resolution approving the consolidation. The resolution formally declares that the General Arbitration Council is the successor of the former Arbitration Bureau of the old NFT.

Also approved by the resolution is a harmonization of the arbitration rules of the two agencies. Principal change is establishment in the General Arbitration Council of the panel system of selecting arbitrators, under which each party to a dispute is assured one arbitrator from the official list, selected from his own branch of the industry, while the third arbitrator is chosen by the first two from a different branch. This improvement is designed to insure a maximum of fairness and impartiality in all decisions.

The enlarged General Arbitration Council of the Textile Industry, under that name, will be conducted with H. A. Sherman continuing as its executive head, with the title of secretary and treasurer, and a staff of administrators comprising those now employed by the Council and the Bureau. Headquarters have been established in the Salmon Tower Building, 11 West 42nd Street, New York City.

The effective joining of the two arbitration agencies was expected to take place this month. In addition to Ross, other members of the Arbitration Council's standing committee are: Erwin Feldman, National Association of House and Daytime Dress Manufacturers; Edward M. Fuller, Greenwood Mills, Inc; Joseph Hoesl, National Association of Finishers of Textile Fabrics, and Arthur Klurfield, Textile Fabrics Association.

Along with the Textile Distributors Institute, 16 other trade associations are sponsors of the expanded General Arbitration Council of the Textile Industry. They are: The American Cotton Manufacturers Institute; The Association of Cotton Textile Merchants of New York; Association of Narrow Fabric Manufacturers, Inc; Association of Yarn Distributors; The Carded Yarn Association, Inc; Combed Yarn Spinners Association; International Association of Garment Manufacturers; National Association of Finishers of Textile Fabrics; The National Association of House and Daytime Dress Manufacturers; National Association of Purchasing Agents, Inc; National Association of Shirt, Pajama & Sportswear Manufacturers; National Wholesale Drygoods Association; Northern Textile Association; Textile Fabrics Association; The Thread Institute, Inc; Underwear Institute.

TDI Golf Tournament Sold Out

Accommodations for the annual golf tournament of the Textile Distributors Institute, to be held next month, are completely sold out, according to an announcement by Hilda A. Wiedenfeld, executive director of the Institute. The tournament will be held, as in the past, at Shawnee Inn, Shawnee-on-Delaware, Pa., from June 10 to June 12. Members and others attending the tournament are invited to arrive on the evening of Tuesday, June 9.

For the annual TDI musicial show, to be held on the evening of June 11, rehearsals are currently in full swing. Acording to advance reports, the show this year will top all others in its hilarious comedy content and the high level of its performance. Members and others attending the tournament who are theatrically gifted and wish to participate in the show are urged to contact the office of the Institute.

Members and guests who attend the tournament this year will find that Shawnee Inn has added a number of features to make their stay more pleasant and varied in its activites. A new larger swimming pool has been built to supplement the older pool. Both pools are now illuminated for night swimming. The tennis courts also have been refurbished and illuminated so that tennis can be played after dark.

U. S. MAN-MADE FIBER PRICES

This schedule lists the prices of yarns, staple and tow as reported by the producers in April 1959. All prices are given as subject to change without notice.

CELLULOSIC YARNS

ACETATE

American Viscose Corp.

Current Prices

Effective March 13, 1959

Bright and Dull

* Intermediate Twist

Denier & Filaments	Cones & 4-6 Lb. Tubes	Twister Tubes	Warps	Spinning Cones	Twist Warps
40/11	....	....	....	....	$1.14
45/11	....	....	....	....	1.03
55/14	$ .99	$ .97	$1.00	....	.87
75/20	.95	.93	.96	$ .89	.90
100/28	.91	.89	.92	.85	.86
120/32	.82	.80	.83	.76	.77
150/41	.74	.73	.75	.69	.70
200/54	.70	.69	.71	.66	.67
300/80	.66	.65	.67	.62	.63

* Standard Twist 2¢ Additional.

Terms: Net 30 Days.

Celanese Corp. of America

Current Prices

Effective March 10, 1959

Bright & Dull

Denier and Filaments	Intermediate Twist 4 & 6-Lb. Cones	Beams	4-Pound Cheeses	Spinning Twist Cones	Beams	O Twist Tubes
45/13	$1.12	$1.13	$	$	$	$ ....
75/20	.95	.96	....	.89	.90	.79
75/50	.97	.98	....	....	.92	.84
100/26-40	.91	.92	....	.85	.86	.77
120/40	.82	.83	....	.76	.77	....
150/40	.74	.75	.74	.69	.70	.66
200/52	.70	.71	....	.66	.67	....
300/80	.66	.67	....	.62	.63	.60
450/120	.66	.67	....	.62	.63	....
600/160	.65	.66	....	....	....	....
900/80-240	.63	.64	....	....	....	.61

150 Denier 12-TM Tubes ..... .73

2-Pound Cheeses ..... .01 Less Than 4-Pound Cheeses

2-BU and 4-BU Tubes ..... Same Price as 4 and 6-Lb. Cones

Terms: Net 30 days. Shipments prepaid to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

* No transportation allowed (F.O.B. shipping point).

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgements of orders.

Celaperm Filament Yarn Prices

Denier and Filaments	Intermediate Twist 4 & 6-Lb. Cones	Beams	Spinning Twist Cones	Beams
55/15	$1.37	$1.38	$1.31	$1.32
75/20	1.34	1.35	1.28	1.29
100/26	1.28	1.29	1.22	1.23
120/40	1.19	1.20	1.13	1.14
150/40	1.11	1.12	1.06	1.07
200/52	1.05	1.06	1.01	1.02
300/80	1.01	1.02	.97	.98
450/120	.99	1.00	.95	.96
600/160	.97	.98	....	....
900/80	.94	....	....	....

3 to 5 Turns on Cones or Beams — $.02 Additional

Celaperm Black Yarn Prices

Effective March 11, 1955

Denier and Filaments	4 & 6-Lb. Intermediate Twist Cones	Beams	Spinning Twist Cones	Beams
55/15	$1.17	$1.18	$1.11	$1.12
75/20	1.14	1.15	1.08	1.09
100/26	1.08	1.09	1.02	1.03
120/40	.99	1.00	.93	.94
150/40	.91	.92	.86	.87
200/52	.85	.86	.81	.82
300/80	.81	.82	.77	.78
450/120	.79	.80	.75	.76
600/160	.77	.78	....	....
900/80	.74	....	....	....

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our Acknowledgments of Orders.

Arnel Triacetate Yarn Prices

Bright & Dull

Effective August 19, 1958

Supersedes April 18, 1958

Denier and Filaments	Cones	Beams	Thick and Thin Cones
55/WKZ/15	$	$1.16	$ ....
55/2Z/15	1.32	1.33	....
75/WKZ/20	....	1.16	....
75/2Z/20	1.21	1.22	....
100/2Z/26	1.14	1.15	....
150/2Z/40	.95	.96	....
200/2Z/52	.92	.93	1.25
300/2Z/80	.87	.88	1.23
450/2Z/120	.86	.87	....
600/2Z/160	.85	.86	1.21

3 to 5 Turns on Cones or Beams—$.02 Additional

Premium for Black Arnel—$.25 Per Pound

Premium for Navy Arnel—$.37 Per Pound

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our Acknowledgments of Orders.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

Acetate

Denier & Filament	Zero Twist Tubes	Beams	Low Twist Cones	Beams	Intermediate Twist 2 & 4 Lb. 5/8" Tbs.	4 & 6 Lb. Tw. Tbs.	Cones	Bms.
45-13	$1.03	$1.11		$1.12				
55-18	.925	.985		.99			$1.04	$1.05
55-24	.925	.985		.99			1.04	1.05
75-24	.84	.94		.95		$.98	1.00	1.01
75-50				.97		1.00	1.02	1.03
100-32	.81	.89		.90		.93	.95	.96
120-50	.77	.80		.81		.85	.86	.87
150-40	.69	.72	.72	.73	.77	.77	.77	.78
200-60	.68		.69	.70	.73	.73	.73	.74
240-80			.67				.71	
300-80	.63	.65	.65	.66	.69	.69	.69	.70
450-120	.63		.63	.64	.67	.67	.67	.68
600-160					.65		.65	.66
900-44					.63		.63	.64
900-240					.63		.63	.64
1800-88					.61		.61	.62
2700-132					.61		.61	.62
3000-210					.61			.62

(A) Regular Twist (2.9 and 5 T.P.I.)—add $.02 to Intermediate Twist Price.

(B) 1 lb. 5/8" Tubes—add $.02 to 2 & 4 lb. 5/8" Tube Price.

Color-Sealed

Denier & Filament	Zero Twist Tubes	Beams	Low Twist Cones	Beams	Intermediate Twist Twisted Tubes 2 Lb.	4 & 6 Lb.	Cones	Beams
55-18	$1.245	$1.315		$1.32	$1.35	$1.35	$1.37	$1.38
75-24	1.18	1.28		1.29	1.32	1.32	1.34	1.35
100-32	1.14			1.23	1.26	1.26	1.28	1.29
150-40	1.03	1.06	1.06	1.07	1.10	1.11	1.11	1.12
200-64	1.00		1.01	1.02	1.04	1.05	1.05	1.06
300-80	.95	.97	.97	.98	1.00	1.01	1.01	1.02

(A) Regular Twist—Add $.02 to Intermediate Twist Price.

Black

Denier & Filament	Zero Twist Tubes	Beams	Low Twist Cones	Beams	Intermediate Twist 2 & 4 Lb. 5/8" Tbs.	4 & 6 Lb. Tw. Tbs.	Cones	Beams
55-18	$1.045	$1.115		$1.12		$1.15	$1.17	$1.18
75-24	.98	1.08		1.09		1.12	1.14	1.15
100-32	.94			1.03		1.06	1.08	1.09
150-40	.83	.86	.86	.87		.91	.91	.92
200-60	.80		.81	.82		.85	.85	.86
300-80	.75	.77	.77	.78	.81	.81	.81	.82
450-120			.75	.76	.79	.79	.79	.80
600-160			.73	.74	.77	.77	.77	.78
900-240			.73	.74	.74	.74	.74	.75

(A) Regular Twist (2.9 and 5 T.P.I.)—add $.02 to Int. Twist Price.

(B) 1 lb. 5/8" Tubes—add $.02 to 2 & 4 lb. 5/8" Tube Price.

Specialty Yarns

Type 20 — Same Price as Regular Yarn

Type C — Same Price as Regular Yarn

Thick & Thin

Denier & Filament	Natural Cones	Beams	Black Cones	Beams	Color-Sealed Cones	Beams
200-64 Int. Twist	1.05		$1.15		$1.35	
200-64 Reg. Twist	1.08	$1.09	1.17	$1.21		

Terms: Net 30 days. Subject to changes without notice.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

TEXTILE NEWS BRIEFS

Buys Saran Yarns Co.

National Plastic Products Co., manufacturer of monofilaments, has acquired full ownership of Saran Yarns Co., Odenton, Md., by purchase of the interest of Dow Chemical Co. The manufacturing facilities of Saran Yarns, its research and development laboratories, will be combined with those of National. Emphasis will be placed on Saranspun, used in the drapery and carpet fields. *For further information write the editors.*

Chemtex Gets Assignment

Chemtex Corp. has been retained by Air Reduction Co. as plant consultant in connection with Air Reduction's acquisition of a license on the polyvinyl alcohol fiber process of Murashiki Rayon Co. of Japan. Air Reduction reports it is now compiling technical and economic data necessary to determine the commercial feasibility of marketing polyvinyl alcohol fiber in this country and has not yet decided to build a fiber plant.

Textile Summer Courses

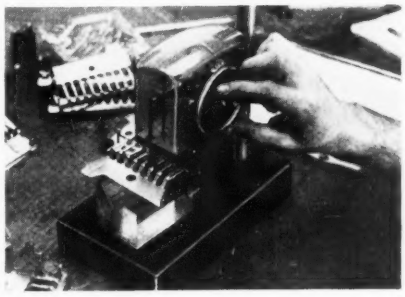
Clemson College School of Textiles, Clemson, S. C., will conduct a short course program in textiles this summer. The program, consisting of five courses, will include: yarn manufacturing, fabric development, supervisor development, motion and time study, and quality control. Each course will be presented as a full-time program, running for three weeks with no classes on Friday afternoons or Saturday mornings. The first course begins on June 15 and the last on July 27.

Caprolan Rug Promotion

April saw the start of a full scale promotion for carpets of textured Caprolan, made of Allied Chemical's filament nylon. Full-page ads in Reader's Digest and Time Magazine launched the campaign to win a bigger position for Allied Chemical as a fiber supplier to the carpet, upholstery and homefurnishings fabric industry.

Chapman Heads ACMI

James A. Chapman, Inman and Riverdale Mills, was elected president of the American Cotton Manufacturers Institute at the annual convention at Palm Beach, Fla. Also elected were: J. M. Cheatham, Dundee Mills, Inc., first vice president; R. Dave Hall, Climax Spinning Co., second vice president; Robert C. Jackson, executive vice president, and F. Sadler Love, secretary-treasurer.



Magna Gage quality control. All *Walhard Hard Chromium Plating* is precision measured for absolute uniformity. Your guarantee of quality. This test is non-destructive.

"Alike as peas in a pod" . . . . An example of Uniformity. For uniformity in your *Hard Chromium Plating* buy the best protection possible. Our customers have learned to expect the best in *Hard Chromium Plating* when they buy *Walhard*.

Lack of uniformity in your *Hard Chromium Plated* parts can mean trouble, early replacement, down time . . . . money out of your pocket.

Our twenty-five years of successful experience prove that fast, efficient service, plus *Hard Chromium Plating* "know how" puts dollars "back in" your pockets.

Be sure you get quality *Walhard Hard Chromium Plating—satin* or *polished* finish—it costs no more, yet lasts so much longer.

Walhard

The Leading Name In Textile Hard Chromium Plating.

WALTON and LONSBURY

79 NORTH AVENUE ATTLEBORO, MASSACHUSETTS

Eastman Chemical Products, Inc.

Tennessee Eastman Co.

Effective March 13, 1959

"Estron"* Yarn, Bright or Dull — White

Denier & Filament	Regular Twist Cones	Intermediate Twist Cones	Intermediate Twist Tubes	Intermediate Twist Beams	Low Twist Cones	Low Twist Beams	Zero Twist Tubes	Tricot Beams Spun Twist	Tricot Beams Zero Twist
55/13	$1.01	$1.02	$0.99	$1.00	$0.93	$0.94	$0.82	$0.87	$0.86
75/19	.97	.98	.95	.96	.89	.90	....	.90	....
75/49	.99	1.00	.97	.98	....	....	....	....	....
100/25	.93	.94	.91	.92	.85	.86	....	....	....
120/30	.84	.85	.82	.83	.76	.77	....	....	....
150/38	.76	.77	.74	.75	.69	.70	.66	....	....
200/50	.72	.73	.70	.71	.66	.67	....	....	....
300/75	.68	.69	.66	.67	.62	.63	.60	....	....
450/114	.68	.69	.66	.67	.62	.63	....	....	....
600/156	.67	.68	.65	.66	.62	.63	....	....	....
900/230	.65	.66	.63	.64	....	....	.61	....	....
Heavier	....	....	....	....	....	....	.56	....	....

Current Prices—December 19, 1955

"Chromspun"*—Standard Colors (Except Black)

Denier & Filament	Regular Twist Cones	Regular Twist Beams	Intermediate Twist Cones	Intermediate Twist Beams	Low Twist Cones	Low Twist Beams
55/13	$1.39	$1.40	$1.37	$1.38	$1.31	$1.32
75/19	1.36	1.37	1.34	1.35	1.28	1.29
100/25	1.30	1.31	1.28	1.29	1.22	1.23
150/38	....	....	1.11	1.12	1.06	1.07
300/75	....	....	1.01	1.02	.97	.98
450/114	....	....	.99	1.00	.95	.96
900/230	....	....	.94	.95	....	....

Current Prices

"Chromspun"*—Black

Denier & Filament	Regular Twist Cones	Intermediate Twist Cones	Intermediate Twist Beams	Low Twist & Spun Twist Beams
55/13	$1.19	$1.17	$1.18	$1.12
75/19	1.16	1.14	1.15	1.09
100/25	1.10	1.08	1.09	1.03
150/38	.93	.91	.92	.87
200/50	.87	.85	.86	.82
300/75	.83	.81	.82	.78
450/114	.81	.79	.80	.76
900/230	.76	.74	.75	....

Prices are subject to change without notice.

Prices on special items quoted on request.

Terms: Net 30 days. Payment—U. S. A. dollars.

Transportation charges prepaid or allowed to destination in continental United States except Alaska. Seller reserves right to select route and method of shipment. If Buyer requests and Seller agrees to a route or method involving higher than lowest rate Buyer shall pay the excess of transportation cost and tax.

* "Estron" is a trade-mark of the Eastman Kodak Company.

RAYON

American Bemberg

Current Prices

Regular Production Reel Spun Yarn

Den/Fil	No Turn Skeins	Turned* Skeins & Cones	8½ Turns	High Turn Skeins & Cones 12 Turns	15 Turns	18 Turns
40/30	$1.49	$1.95	....	....	....	$2.08
50/36	1.29	1.55	....	....	....	1.85
65/45	1.19	1.35	....	$1.58	....	1.63
76/60**	1.08	1.22	....	1.45	$1.50	1.53
100/74**	.99	1.12	....	1.37	1.42	1.48
125/60	.98	1.09	$1.13	1.34	....	....
150/120	.96	1.05	1.15	1.30	....	....
300/225	....	.98	....	....	1.11	....
900/372	....	.88	....	....	....	....
1800/744	....	.88	....	....	....	....

* Turn includes twists up to 6 turns on 40 and 50 denier, and up to 5 turns on heavier deniers.

** Spun Dyed Cupracolor Black 15¢ per lb. extra.

"44" HH Spool Spun Yarn

Den/Fil	No Turn Tubes	No Turn Beams	5 Turn Beams	5 Turn Cones	12 Turn Beams	12 Turn Cones	15 Turn Cones
40/30	$1.35	$1.35	....	....	....	....	....
50/36	1.05	1.05	....	....	....	....	....
65/45	1.10	....	....	....	....	$1.47	....
75/45*	1.01	....	$1.12	$1.12	$1.35	1.35	$1.43
100/60*	.93	....	1.07	1.07	1.27	1.27	1.35
125/60	.88	....	1.03	1.03	....	....	....
150/90*	.80	....	.84	.84	1.18	1.18	1.27
150/120	.84	....	....	.96	....	....	....

* Available also in Spun Dyed Cupracolor Black at 15¢ per lb. extra.

"44" HH "Parfe" Spool Spun Yarn

Den/Fil	No Turn Cones	5 Turn Cones	5 Turn Beams	12 Turn Cones	15 Turn Cones
50/36	$1.60	$1.85	$1.85	....	....
75/45	1.45	1.55	1.55	$1.75	$1.85
100/60	1.35	1.45	1.45	1.65	1.75
150/90	1.18	1.25	1.25	1.60	1.70
300/120	1.18	1.25	....	....	....

Nub-Lite (Short Nubbi)

Code	Den/Fil	2½ Turn Natural Cones	2½ Turn Cones*	5 Turn Natural Cones	5 Turn Cones*
1515	160/90	....	....	$1.50	$1.40
1519**	155/90	....	....	1.50	1.40
2008	200/120	....	....	1.11	1.01
3002	315/180	$1.15	$1.05	....	....
4011	410/224	1.15	1.05	....	....
6001	600/360	1.13	1.03	....	....
8001	860/450	1.13	1.03	....	....

* Basic price for cones when dyed. Dyed Colors 30 and 35 cents above basic price. Prices based on 200 lb. dyed lots only. Prices for natural yarn skeins same as natural cone prices.

** Code 1515 can be run in warp or filling.

CUPIONI Type B

Code	Den/Fil	2½ Turn Cones
9650	70/45	$1.69
9660	100/60	1.53
1545	150/90	1.30
9730	285/135	1.15
9792	450/225	1.15
9814	600/372	1.12
9837	940/372	1.02

"Spun Dyed Cupracolor is spun 150, 285, and 940 deniers at 35¢ per pound extra. Cupracolor Black Comes in all deniers."

STRATA SLUB

Code	Den/Fil	Turned Cones	Price
9747	275/225	3½	$1.25
9798	450/372	2½	1.15
9823	600/372	2½	1.10
9847	960/372	2½	1.02
9885	1290/372	1½	1.00
9934	2680/744	1½	1.00

"Spun Dyed Cupracolor is spun in 600 and 960 deniers at 35¢ per pound extra."

FLAIKONA

Code	Den/Fil	Turned Cones	Price
9669	150/148	2½	$1.35
9769	300/224	2½	1.25
9782	450/270	2½	1.05
9807	600/405	2½	1.05
9840	900/450	2½	1.00
9924	2000/744	2½	.95

"Spun Dyed Cupracolor Black 35¢ per pound extra."

Terms: Net 30 days, F. O. B. shipping point. Minimum freight allowed to consignee's nearest freight station east of the Mississippi River. To points west of the Mississippi River minimum freight allowed to Memphis, Tennessee. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold F. O. B. delivery point.

American Enka Corp.

Current Prices

Effective March 9, 1959

Standard Quality Yarns

Standard Quality Rayon Yarns

NATURAL

Den./Fil.	Luster	Turns	Weaving Cones	Weaving Beams	Skeins Long	Skeins Short	Skeins Cakes	Knitting Cones	Knitting Tubes
50/18	E	5 S						1.59	
50/20	B	2.5 S					1.48		
75/10	B	3 S&Z					.98		
75/18	E	4 S						1.10	
75/30	B	2.5,4S&Z	1.10	1.10	1.18	1.27	.98		
75/30	B	8 S	1.20		1.35	1.45		1.20	1.25
75/45	P,E	2.5, 4,5S&Z	1.10	1.10	1.18	1.27	.98	1.10	
75/60	B,P	3,4 Z	1.12				.90		
100/14	B	3 S&Z				1.11	.86		
100/40	B,E	12 S						1.25	
100/40	B,P,E	4,5 S&Z					.83	.94	
100/40	B	6 S	1.13		1.22	1.32	1.05		
100/40	B,P	2.5,4S&Z	.94	.94	1.03	1.11	.86		
100/60	B	4 S&Z					.86		
100/60	E	2.5 S	.96	.96			.88		
125/40	E	3 Z					.83	.86	
150/40	B,P,E	2.1,3S&Z	.79	.79	.88	.95	.75	.79	
150/40	B,E	5 S&Z	.87	.87	1.07	1.17	.83		
150/40	B,P,E	8 S&Z	.92	.92	1.12	1.22	.88		
150/90	E	2.1 S&Z	.80	.80			.76		.85
200/40	P	3 Z	.78	.78	.87	.94	.74	.78	
200/40	B	5 S				1.03	.91		
250/60	P,E	2.4 Z			.86	.93		.77	
300/30	E	3 S	.78	.82					
300/50	B,E	3 S	.70	.73					
300/60,120	B,P,E	2.1 S&Z	.70	.70	.76	.83	.68	.70	
300/60	B	3.5 S	.70	.70	.76	.83	.68		
300/60	B	7 S	.83			.91			
300/40,120H.T.	B	2.5, 3,4S	.72	.72			.70		
450/80	B,E	3 S	.66	.68	.73	.80	.64		
600/80	B,E	3 S	.70	.72			.69		
600/120	B	3 S	.66	.68			.64		
900/120	B	3.4 S	.66	.68	.73	.80	.64		
900/120H.T.	B	3.6 S	.68	.68			.66		

B = Briglo E = Englo (Dull)

P = Perlglo (Semi-Dull) H.T. = High Tenacity

Jetspun® (Colored Yarns)

Den./Fil.	Tenacity	Turns	Weaving Cones	Weaving Beams	Colors
100/40	Regular	2.5S	$1.31	$1.31	All
150/40	Regular	2.1S	1.14	1.10	All
200/40	Regular	8.3S	1.25	1.25	All
300/120	Regular	2.1S	1.05	1.06	All
450/80	Regular	3.0S	1.02	1.02	All
300/40	High	3.4S	1.08	1.08	All
600/80	High	3.4S	1.04	1.04	All
900/120	High	3.4S	1.03	1.03	All

® Registered Trade Mark for American Enka Solution-dyed Rayon Yarn.

ATMA Committees Active

Appointments to three committees of the American Textile Machinery Association have been announced by William K. Child, Draper Corp., president of ATMA. James H. Hunter, James Hunter Machine Co., has been named chairman of the membership committee. Robert Pennock, Universal Winding Co. and J. Woodward Hubbard, Saco-Lowell Shops, have been appointed to the exhibition committee. ATMA will hold its 1960 International Machinery Show in Atlantic City, N. J. Albert F. Koepcke, Saco-Lowell Shops, has ben added to the public relations committee.

Sheridan Heads TSA

Daniel Sheridan, Folker Fabrics Corp., was elected president of the Textile Salesmen's Association at the recent annual election meeting in New York. Other officers named were: William E. Ix, Jr., Frank Ix & Sons, first vice president and treasurer; Arthur H. Wingate, the Du Pont Co., second vice president, and Michael J. Brady, secretary.

Theodore B. Luse, Congress Factors Corp., outgoing president, and William C. Leopoldt, retired secretary-treasurer, were presented with silver trays in recognition of their services to the association.

New Thread Guide Booklet

Mitchell-Bissell Co., Trenton, N. J., has available a new eight page brochure containing specifications and detailed information about hundreds of standard chromium-plated wire thread guides. The brochure can be used separately or combined with Mitchell-Bissell's general loose-leaf catalog of thread guides. *Copies of the new brochure or of the complete catalog can be had free of charge by writing the editors.*

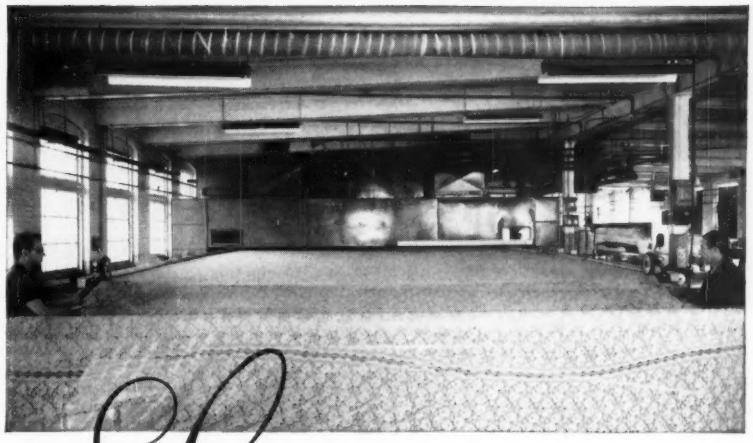
Dacron Fiberfill Batting

Du Pont Co. is now offering Dacron polyester fiberfill in batting form directly to manufacturers. Previously, Du Pont sold fiberfill only in bales, which had to be garnetted prior to use as a stuffing material. The company reported that tests conducted over the past two years have shown that Dacron fiberfill has given good performance as a cushioning material.

The finished batting will be offered in two types, sewn and unsewn. *For further information write the editors.*

Geigy Film on TV

The Home Service Bureau for the Dyestuffs Division of Geigy Chemical Corp. reports its Swiss-made film, "Insects Astray," has been given 800 original and repeat showings over U. S. and Canadian TV stations, reaching an estimated audience of 20 million viewers. The



Lace IN THE MAKING

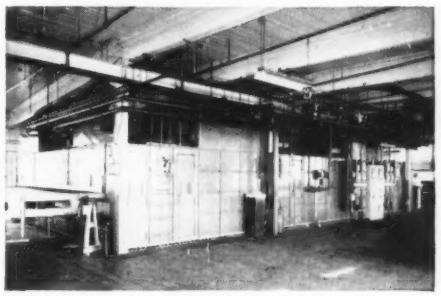
...the "Key" finishing unit being the special A & G 2-zone Drying and Setting Unit

Hope Valley Dyeing Corp., West Warwick, R. I., had a problem. Within the existing building space being used for making lace, they wanted to

1...get greater production

2...modernize to be able to meet the growing demand for laces made of the synthetic as well as cotton fibers

3...have sufficient flexibility and range in the Drying and Setting Oven to be able to change production schedules, as desired



The design of the Drying and Setting Oven presented a major problem not only because of the limited building space available but because of the changed finishing demands. The job was turned over to A & G Engineers. The unit installed is a single pass 2-zone 50 foot long gas-fired machine to handle webs up to 21 feet in width at temperatures up to 450°. Operating speeds range from 12 to 25 yards per minute on this unit, which has a 4" thick housing to prevent heat radiation into the room and has special air locks at each end of the oven to prevent the heated air escaping into the room. Special nozzle design and air distribution are providing uniform drying and setting across all webs, regardless of width, while assuring proper hand and quality.

This installation is a typical modernization program where A & G Engineers have been of immeasurable assistance. Perhaps you have a similar project where we can be of help.

MR

THE MIDLAND-ROSS GROUP OF COMPLEMENTING SERVICES

ANDREWS & GOODRICH

Division of Midland-Ross Corporation

336 ADAMS STREET, BOSTON 22, MASS.

Southern Representatives:

McSpadden & Scantland, Charlotte, N. C.

Skyloft (Lofted Rayon Filament Yarns) Natural and Jetspun®

Denier	Denier per Filament	Twist	Cones or Tubes Natural	Black	Other Colors
1000	7.5	3.5S	$.82	$1.17	$1.17
2200	15	3.5S&Z	.67	.77	.84
2700	15	3.5S&Z	.67	.77	.85
4300	8	3.0S&Z	.66	.76	.83
5300	15	3.0S&Z	.65	.75	.82

American Viscose Corp.

Effective February 27, 1959

Graded Yarns

Denier	Filament	Type	Short Skeins	Long Skeins	Cones Tubes	Beams Spools	Cakes
		Regular Turns					
50	20	Bright & Dull	$	$1.62	$1.59	$1.59	$1.48
60	10	Bright	....	....	1.44	....	1.33
75	10-30	Bright	1.27	1.18	1.10	1.10	.98
75	30	Dull	....	....	1.10	1.10	.98
100	14-40	Bright	1.11	1.03	.94	.94	.86
100	60	Dull	....	....	.96	.96	.88
150	24-40	Bright	.95	.88	.79	.79	.75
150	40	Semi-Dull	.95	.88	.79	.79	.75
150	40	Dull	....	....	.79	.79	.75
150	90	Dull	....	....	.80	....	.76
200	10-44	Bright	.94	.87	.78	.78	.74
250	60	Semi-Dull & Dull	.93	.86	.77	.77	.74
300	15	Bright	....	.79	.75	.75	....
300	30	Dull Flat Filament	....	....	....	.82	....
300	44	Bright & Dull	.83	.76	.70	.70	.68
300	234	Dull	....	....	.80	....	.78
375	60	Bright	....	....	.69	.69	....
450	60-100	Bright	....	.73	.66	.68	.64
600	100	Bright & Dull	....	.73	.66	.68	.64
900	50-100-150	Bright	....	.73	.66	.68	.64
1200	75	Bright	....	.73	.66	.68	....
2700	150	Bright	....	.73	.66	.68	....
		Extra Turns Per Inch					
75	30	Bright 6-Turns	$1.45	$1.35	$1.20	$1.20	$ ....
100	40	Bright 6-Turns	1.32	1.22	1.13	1.13	1.05
150	40	Bright 6-Turns	1.17	1.07	.87	.87	.85
200	44	Bright 6-Turns	....	.98	.93	.93	....
300	15	Bright 5-Turns	....	....	.83	.83	....
300	44	Bright 4.3-Turns	....	....	.78	....	.76
300	44	Bright 6-Turns	.91	.84	.83	.83	.81
300	120	Rayflex 6-Turns	....	....	.90	.90	....
600	30	Bright 5-Turns	....	.81	.79	.79	.77
		Rayflex Yarns					
75	30	Rayflex	$	$	$1.18	$1.18	$1.09
100	40	Rayflex	....	....	1.03	1.03	.95
150	40-60	Rayflex	....	....	.82	.82	.78
200	75	Rayflex	....	....	.81	.81	.77
300	60-120	Rayflex	....	....	.72	.72	.70
450	120	Rayflex	....	....	.68	.68	.66
600	234	Rayflex	....	....	.68	.68	.66
900	350	Rayflex	....	.75	.68	.68	.66
		Thick & Thin Yarns					
150	40-90	Bright & Dull	$	$	$1.18	$	$ ....
200	75	Bright & Dull	....	....	1.08	....	....
300	120	Bright & Dull	....	....	.98	....	....
450	100	Bright & Dull	....	....	.92	....	....
490	120	Bright & Dull	....	....	.98	....	....
900	350	Dull	....	....	1.03	....	....
920	120	Bright & Dull	....	....	1.03	....	....

Colorspun Yarns

Denier	Type	Cones/Tubes Beams/Spools
75	Regular Strength	$1.63
100	Regular Strength	1.31
150	Regular Strength	1.14
200	Regular Strength	1.11
300	Regular Strength	1.06
450	Regular Strength	1.02
600	Regular Strength	1.02
900	Regular Strength	1.02
300	High Strength	1.08
450	High Strength	1.03
900	High Strength	1.03
300	Regular Strength 5-Turns	1.16

Avicron Yarns

Denier	Filament	Cones/Tubes Beams/Spools
1800	100-200 Singles & 2 Ply	$ .68
2700	150-300-980 Singles & 2 Ply	.65

Viscose Filament Yarns

The following material deposit charges are required:

Metal Section Beams	$170.00 each
Metal Section Beam Racks	75.00 each
Metal Tricot Spools—14" flange	30.00 each
21" flange	60.00 each
32" flange	150.00 each
Metal Tricot Spool Racks—14" flange	135.00 each
21" flange	100.00 each
32" flange	75.00 each
Wooden Tricot Spool Crates	20.00 each
Cloth Cake Covers	.05 each

Same to be credited upon return in good condition—freight collect.

Celanese Corp. of America

Current Prices

Effective July 24, 1958

Viscose Rayon Filament Yarn Prices—Bright and Dull

Denier/Fil./Twist		Beams	Cones	Cakes
75/30/3			1.06	.94
100/40/2Z		.93		
100/40/3			.92	.84
100/40/5			.98	.88
100/60/2Z			.92	
100/60/3			.94	.86
125/40/2Z		.89		
125/40/3			.90	.81
150/40/0	NS		.71½	
150/40/2Z	NS	.78		
150/40/3			.76½	.73
150/40/5			.87	.83
150/40/8			.92	.88
150/90/0	NS		.74½	
250/60/0			.71	
250/60/3			.77	.74
300/50/0	NS		.67	
300/50/2Z	NS	.69		
300/50/3			.67½	.66
450/120/0	NS		.64	

Terms: Net 30 days. Shipments prepaid to any destination in U.S.A. east of the Mississippi River. Shipments west of the Mississippi will be made on a collect freight basis and allowance will be made for the lowest transportation cost to the point of river crossing.

Prices subject to change without notice.

All previous prices withdrawn.

* No transportation allowed (F.O.B. shipping point).

Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept. Current Prices

Effective with orders March 11, 1959

Bright and Dull

Den.	Fil.	Turns/Inch Up to		Cones (A) Beams	Tubes	Cakes
40	20	3	Textile "Cordura"*		$1.93	$1.88
50	20	3			1.66	
50	20	3	Textile "Cordura"		1.68	1.63
50	35	3	Textile "Cordura"		1.73	
75	10	3	Bright			.98
75	30	3		$1.10	1.10	.88
100	15	3	Bright			.86
100	40	3	Bright	.94	.94	.86
100	60	3	Dull		.96	.88
125	50	3		.92	.92	.83
150	40	3		.79	.79	.75
150	60	3	Bright	.79	.79	
150	60	3	Textile "Cordura"		.845	.815
150	90	3	Dull		.80	
150	100	3	Dull		.80	
300	50	2.5		.70	.70	.68
300	120	3	Textile "Cordura"	.71	.71	.69
450	72	3		.68	.66	.64
600	96	3	Bright	.68	.66	.64
600	240	3	Textile "Cordura"	.69	.67	
900	50	3	Bright	.68	.66	.64
900	144	3	Bright	.68	.66	.64
1165	480	3	Textile "Cordura"	.69	.67	.65
1800	100	3	Bright		.66	
2700	150	3	Bright	.68	.66	
			Thick and Thin			
100	40	3	#7 Bright		1.38	
150	90	3	#7 Bright		1.05	
200	80	3	#7 Bright		1.05	
450	100	3	#7 Bright		.89	
1100	240	3	#60 Bright		1.00	
2200	480	3	#60 Bright		.95	
			Monofils			
150	1	3	Bright	1.35	1.35	
300	1	3	Bright	1.15	1.10	
600	1	3	Bright		1.00	
			Plush			
300	30	3	Dull	.82	.79	

(A) 2¢/lb. additional for cones less than 3#.

Terms: Net 30 days.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

* "CORDURA" and "SUPER CORDURA" are Du Pont's registered trade-marks for its high tenacity rayon yarn.

Industrial Rayon Corp.

Effective March 9, 1959

Continuous Process Textile Yarns

Denier	Filament	Turns per In.	Type	Beams	2.8# Cones	4.4# Cones and Tubes	Skeins
150	40	2.5"S"	Bright	.79	.79		.88
200	20	2.5"S"	Bright	.78	.78		.87
300	44	2.5"S"	Bright	.70	.70		.76
450	60	2.0"S"	Bright	.66		.66	.73
600	90	1.5"S"	Bright	.66		.66	.73
900	50	2.0"S"	Bright	.66		.66	.73
900	150	1.5"S"	Bright	.66		.66	.73
1100	480	2.0"Z"	Bright extra strong	.66		.66	.73

Standard skein lengths—150 denier, 16,300 yards; 300 denier, 6,500 yards; 450 denier, 4,400 yards; 600 denier, 3,200 yards; 900 denier, 2,100 yards; 1100 denier, 2,000 yards.

Lustre #4 is semi-dull.

Prices are subject to change without notice.

film shows how chemistry combats insect damage to apparel and home furnishings. The Geigy movie shows key stages in the development of Geigy's Mitin, a durable anti-moth compound applicable to woolen fabrics and wool-synthetic blends, during dyeing or other wet processes. *To borrow the film for screening write the editors.*

Sales Training Film

One of the features of an intensive sales training program by Celanese Corp. is a 13½ minute film telling the story of Celaire, the newly-developed "Life-Set" twist acetate carpet fiber. The 16mm four-color sound film has been prepared especially for retailers' sales staffs. *Stores and others interested in borrowing the film for screening are invited to write the editors.*

Brochure on Textone

Olin Mathieson Chemical Corp. has published a 26-page brochure on Textone, a sodium chlorite product for bleaching, oxidizing and stripping textiles. The booklet will provide textile manufacturers with a ready source of information. *For copies write the editors.*

Mill Will Re-Equip

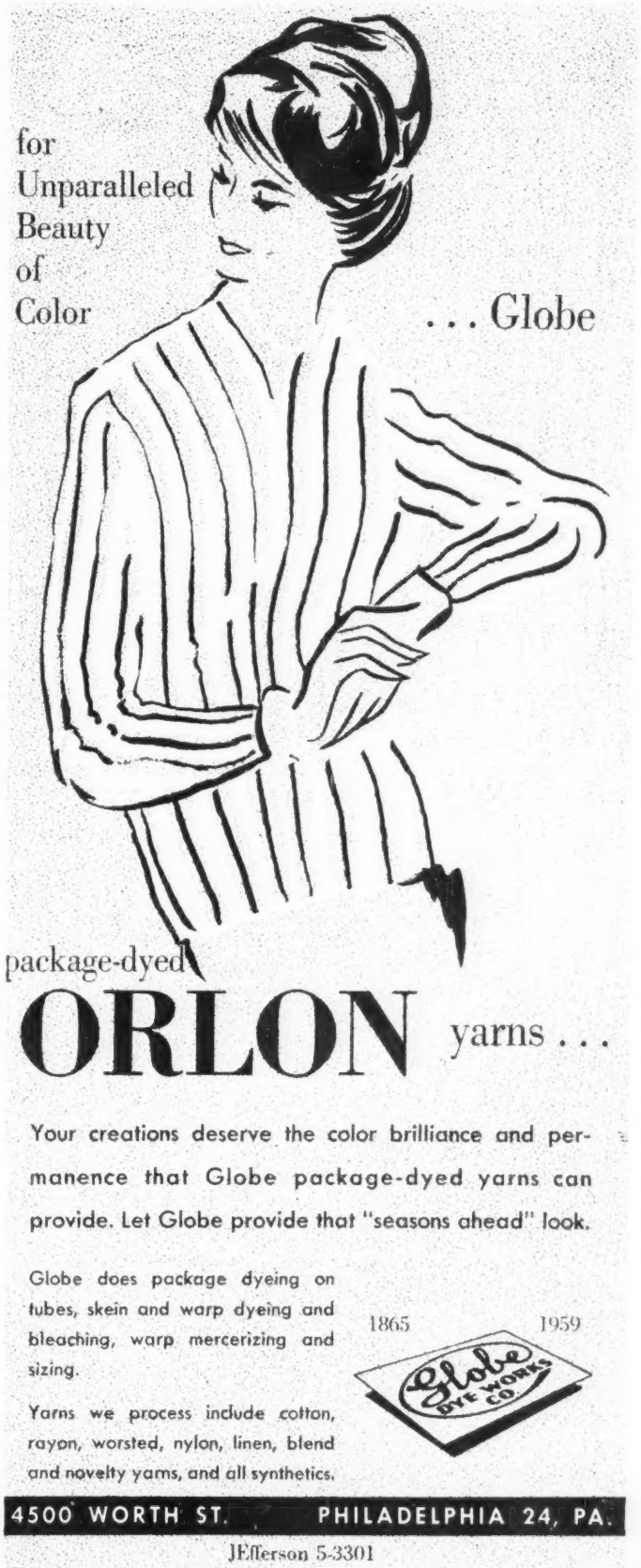
Dan River Mills expects to spend in excess of $4,000,000 for new machinery and modernization of machinery already in place during the year, according to a company spokesman. This amount is slightly less than depreciation on a consolidated basis and is in line with Dan River's policy of planned capital investment to secure operating economies and low-cost operations.

Personnel Notes

Jesse I. Long has been promoted to shuttle specialty salesman for the southern division of Steel Heddle Manufacturing Co. He will serve mills in Georgia and North and South Carolina. **Don Tate** has been promoted to the position of reed specialty salesman for the company's southern division. **Willard A. Goodwin** has been transferred from the New England territory to the southern division sales force of Steel Heddle, assigned to South Carolina.

Roy M. Meiklejohn has been appointed director of western operations for Allied Chemical Corp. with offices in San Francisco. **Richard Orenge** has joined the company's fiber sales promotion staff and **Arnold Kranzler,** the fiber advertising staff, each reporting to Robert E. Ellsworth, manager of sales promotion and advertising. Mr. Kranzler will take charge of print media services.

Olen Marks has been appointed manager of the Technical Service Department of Fabrionics Corp.


for
Unparalleled
Beauty
of
Color
. . . Globe
package-dyed
ORLON yarns . . .
Your creations deserve the color brilliance and permanence that Globe package-dyed yarns can provide. Let Globe provide that "seasons ahead" look.
Globe does package dyeing on tubes, skein and warp dyeing and bleaching, warp mercerizing and sizing.
Yarns we process include cotton, rayon, worsted, nylon, linen, blend and novelty yarns, and all synthetics.
1865
1959
Globe Dye Works Co.
4500 WORTH ST. PHILADELPHIA 24, PA.
JEfferson 5-3301

Strawn Yarns

Denier	Filament	Turns per In.	Type	4.4# Cones	Spools and Tubes	Skeins
150	1	0	Bright and Dull	1.25	1.30	1.35
150	1	2	Bright and Dull	1.25	1.30	1.35
300	1	0	Bright and Dull	1.10	1.15	1.20
300	1	2	Bright and Dull	1.10	1.15	1.20
450	1	0	Bright and Dull	1.00	1.05	1.10
450	1	2	Bright and Dull	1.00	1.05	1.10
1250	1	0	Bright and Dull	1.00	1.05	1.10
1250	1	2	Bright and Dull	1.00	1.05	1.10

Tubes— 5¢ per pound over cone prices.
Skeins—10¢ per pound over cone prices.
Terms: Net 30 days f.o.b. point of shipment; title to pass to buyer on delivery of goods to carrier. Domestic transportation charges prepaid with transportation allowed at lowest published rate to all points east of the Mississippi River.
Prices are subject to change without notice.

North American Rayon Corp.

Current Prices

Prices Effective March 6, 1959

First Quality Yarns	Den./Fil.	Twist	Cones Knitting*	Cones No Twist Knitting	Cones Weaving	Beams, Tubes**	Velvet Beams & Cones	Untreated Cakes
	75/30	3.5			1.10	1.10	.98
	75/30	7			1.23	1.23	
	75/30	12			1.31	1.31	
	75/30	15			1.33	1.33	
	75/30	20			1.36	1.36	
	100/40/60	3.5			.94	.94	.86
	100/40	12			1.18	1.18	
Normal	125/52/60	3			.92	.92	.83
Strength Yarns	150/42	0		.71½			
NARCO	150/42/60	3	.77½		.79	.81	.75
	300/75	0		.68			
	300/75	3	.70		.70		.68
	900/46	2.5	.66		.66		
	1800/92	2.5	.66		.66		

* Oiled Cones $.01 Per Pound extra for Graded Yarns only.
** 1 lb. tubes $.02 Per Pound extra for Graded Yarns only.
Terms: Net 30 days, F.O.B. shipping point, minimum freight allowed to consignee's nearest freight station east of the Mississippi River. To points west of the Mississippi River minimum freight to Memphis, Tennessee allowed. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold F.O.B. delivery point.
Prices subject to change without notice.

CELLULOSIC HIGH TENACITY YARN and FABRIC

American Enka Corp.

Effective December 19, 1958

Tempra (High Tenacity)

Denier	Elongation	Beams & Cones
1100/480	Low	.62
1230/480	High	.62
1650/720	Low	.56
1820/720	High	.55
2200/960	High & Low	.55

Enka II

*1100/720	Low	.66
*1650/1100	Low	.60
2200/960	Low & High	.59

Terms: Net 30 days, f.o.b. Enka, North Carolina, or Lowland, Tennessee; minimum freight allowed to first destination east of the Mississippi River.
* Tyrex certified viscose yarn.

American Viscose Corp.

Effective February 2, 1959
Revised March 26, 1959

Tyrex
Tyrex Certified Viscose Tire Yarn

Denier	Filament	Twist	Beams	Cones
1100	980	0	.66	.66
1100	980	Z	.66	
1650	980	0	.60	.60
1650	980	Z	.60	—

Tire Fabric Made with Tyrex Certified Viscose Tire Yarn and Cord

Denier	Filament	Carcass	Top Ply	Breaker
1100	980/2	.78	.78	.78
	Factor*	Open-525	300-490	115-275
1650	980/2	.69	.70	.725

* Factor determined by dividing total ends by picks.
Tyrex is a certification mark of Tyrex Inc. for Viscose Tire Yarn and Cord.

Rayon Tire Yarn
Yarn

Denier	Filament	Twist	High Strength	Tire Yarn	Super "Rayflex" 110-210-310	Super "Rayflex" 120-220-320
1100	490	Z		.62		
1100	980	0-Z			.65	.66
1150	490	Z	.62			
1230	490	Z	.62			
1650	980	Z	.56	.56	.59	.60
1650	980	0		.56		.60
1875	980	Z	.56		.59	.60
2200	980	0		.55		.59
3300	1960	0				.59

High Strength available on cones — tubes — beams.

Tire Yarn and Super "Rayflex"

0 twist — Available on cones, beams or 10# tubes.
Z twist — Available on beams.

Sewing Thread

1100/980 Super "Rayflex"	0-Z	Cones	.63
1780/980 Super "Rayflex"	0-Z	Cones	.58

Also available in colors at .07 premium.
All yarns sold "Not Guaranteed for Dyeing".

Rayon Tire Fabric

1100	490	Tire	.74	.74	.74
1100	980	Super-110-210-310	.77	.77	.77
1100	980	Super-120-220-320	.78	.78	.78
		Factor*	Open-525	300-490	115-275
1650	980	Tire	.65	.66	.685
1650	980	Super-110-210-310	.68	.69	.715
1650	980	Super-120-220-320	.69	.70	.725

* Factor determined by dividing total ends by picks.
Cord on cones in regular Tire Yarn twists same as fabric prices.
Other twist combinations — prices quoted on request.
When supplied, yarns and cords in special packages take premiums indicated.

10.5 oz. Wardwell tubes	.09
1.5 lb. Regular Braider tubes	.05
Adhesive Dipped yarn	.05

The following deposit charges are made on invoices.

Beams	$55.00 each
Crates (Metal)	75.00 each
Fabric Shell Rolls	3.50 each

Same to be credited upon return in good condition — freight collect.

Rayon Tire Yarn and Fabric

Terms: Net 30 days. Seller to select and to pay transportation charges of common and contract carrier except when shipment moves West of Mississippi River in which event only the actual cost of transportation to the Mississippi River crossing based on the lowest published freight rate, shall be allowed. Title to pass when merchandise is delivered to consignee. Transportation allowance based on lowest published volume rate shall be granted if merchandise is transported from shipping point in vehicle owned or leased and operated by buyer and title to pass when merchandise is delivered to same.
Prices subject to change without notice.

Celanese Corporation of America

Effective December 27, 1955
Supersedes September 12, 1955

Fortisan Yarn Prices

Denier	Packages	Natural	Black
30/2.5/40	2 lb. Cones	$3.00 lb.	$3.35 lb.
60/2.5/80	4 " "	2.40 "	2.75 "
90/2.5/120	4 " "	2.25 "	2.60 "
120/2.5/160	4 " "	2.05 "	2.40 "
150/2.5/180	4 " "	1.95 "	2.30 "
270/2.5/360	4 " "	1.85 "	2.20 "
300/2.5/360	4 " "	1.85 "	2.20 "
60/2.5/80 Olive Green—Spun Dyed—OG106		4 lb. Cones	3.50 lb.

Terms: Net 30 days. Shipments prepaid to any destination in U.S.A.
Prices subject to change without notice.
All previous prices withdrawn.
* No transportation allowed (F.O.B. shipping point).
Prices on unlisted items can be obtained upon request.
Orders are subject to conditions of sale appearing on our acknowledgments of orders.

Fortisan-36 Rayon Yarn
Bright

Denier and Filament	Twist	4# cones	8# cones	Tubes	Beams
270/280	0.8Z	$2.30			
300/280	0.8Z	$2.05			
300/280	3Z	$2.20			
400/400	0.8Z	$1.75			$1.70
400/400	0			$1.75	
800/800	0.8Z	$1.25	$1.25		$1.20
800/800	3Z	$1.40			
800/800	0			$1.25	
1600/1600	0.8Z	$1.15	$1.15		$1.10
1600/1600	2½Z	$1.30			
1600/1600	0			$1.15	

Terms: Net 30 days. Shipments prepaid to any destination in U.S.A.
Prices subject to change without notice.
All previous prices withdrawn.
* No transportation allowed (F.O.B. shipping point).
Prices on unlisted items can be obtained upon request.
Orders are subject to conditions of sale appearing on our acknowledgments of orders.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept. Current Prices
Effective with orders February 26, 1959

"Super Cordura"*

Den Fil	Turns/in	All Packages
1100-720	2	$.66
1200-720	2	.66
1530-960	2	.63
1600-960	2	.60
1650-1100	2	.60
1800-1100	2	.60
2200-1440	2	.59
2400-1440	2	.59

Terms: Net 30 Days.
Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.
* "CORDURA" and "SUPER CORDURA" are DuPont's registered trade-marks for its high tenacity rayon yarn.

Daniel Smith has been appointed director of the Interchemical Color Center of Interchemical Corp., succeeding **F. L. Wurzburg**, who has returned to the company's Printing Ink Division.

Leslie N. Athorn has become head of the Quality Control and Research Departments of Jagger Brothers, Inc.

Mrs. Ann Smith has become fashion sales coordinator for Metal Film Co., Inc.

Robert Freeman has been appointed sales representative for Onyx Oil & Chemical Co. covering the Metropolitan New York-New Jersey areas, with headquarters in Jersey City.

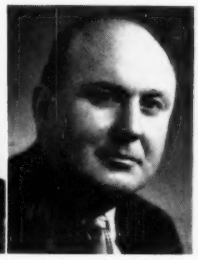
L. F. Remington

Leland F. Remington has been elected vice president of manufacturing of Curtis & Marble Machine Co. He will retain his position as general superintendent and a director of the company.

C. R. Gill

C. Russell Gill has been appointed sales consultant on textile chemical auxiliaries for sizing and finishing for Arnold, Hoffman & Co., Inc., with headquarters in the Atlanta and Charlotte sales offices.

W. H. Sparks



G. I. Simpson

George I. Simpson and **W. H. Sparks** have been named vice presidents of Collins & Aikman.

B. E. Bochmann has been elected vice president in charge of manufacturing and F. Z. Oles, controller and treasurer at Penick & Ford, Ltd., Inc.

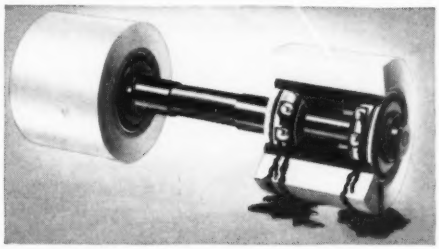
R. Fred Long has joined the technical service department of Roberts Co. **Edward W. Blackwood** and **G. P. Stanley** have become sales engineers for the company, Blackwood covering Central and Western North Carolina and Stanley, Western South Carolina.

Ch. J. Weidmann

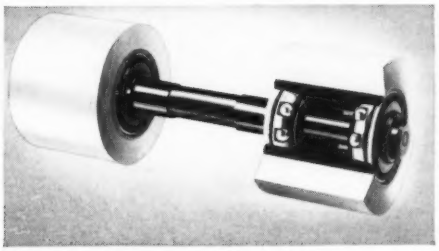
Wm. H. Kieffer

William H. Kieffer and **Dr. Charles J. Weidmann** have been elected vice presidents of Ciba Co., Inc.

NON-FLUID OIL
TRADE MARK REGISTERED



Ordinary oil drips out, stains yarn



NON-FLUID OIL stays where applied

The adhesive nature of NON-FLUID OIL keeps it in the necks of rolls, top rolls, cylinder bearings and saddles of top rolls until it is entirely used up. It reduces wear caused by friction. Power is conserved. Bearings last longer—*they run practically without vibration.*

NON-FLUID OIL, because it stays where applied, does not spread to the face of the rolls or drip from roll necks as ordinary oils do. Top roll damage and oil-stained yarn are completely eliminated. And the savings in lubricant, power and bearing repair which result, often pay the entire cost of the NON-FLUID OIL.

Write for test samples and NON-FLUID OIL Bulletin TB-13.

NEW YORK & NEW JERSEY LUBRICANT COMPANY

292 Madison Ave., New York 17, N. Y.

WORKS: Newark, N. J.

Sou. Dist. Mgr.; Fred W. Phillips, Greenville, S. C.

WAREHOUSES:

Atlanta, Ga. · Birmingham, Ala. · Charlotte, N. C. · Columbus, Ga. · Greensboro, N. C. · Greenville, S. C. · Providence, R. I. · Springfield, Mass. · Chicago, Ill. · Detroit, Mich. · St. Louis, Mo.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

Industrial Rayon Corporation

Effective March 1, 1959

Unbleached Bright High Tenacity Yarns

Single End Beams and Cones—Type 100

Denier	Filament	Turns per Inch	Beams	4.4# Cones
1100	480	1.5 "Z"	.62	.62
1650	720	1.5 "Z"	.56	.56
2200	1000	1.5 "Z"	.55	.55
3300	1440	1.5 "Z"	.55	.55
4400	2000	1.5 "Z"	.55	.55

Type 400 prices are 4¢ more.

Terms: Net 30 days f.o.b. point of shipment, title to pass to buyer on delivery of goods to carrier. Domestic transportation charges allowed at lowest published rate to all points east of the Mississippi River.

PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

North American Rayon Corporation

Super Super High Strength Continuous Yarn Type 710		Cones	Beams
1100/720	1.6Z	.66	.66
1650/720	2.0Z	.60	.60
Tire Cord Fabrics			
Super Super High Strength Type 710			**Rolls**
1100/720			.78
1650/720			.69

* Oiled Cones $.01 per pound extra for Graded Yarns only.

** 1 lb. Tubes $.02 per pound extra for Graded Yarns only.

† Special Quality Marquisette Tubes and Cones.

Terms: Net 30 days, f.o.b. shipping point. Minimum freight allowed to consignee's nearest freight station East of the Mississippi River. To points West of the Mississippi River minimum freight to Memphis, Tenn. allowed. Goods after shipment shall be at buyer's risk. Merchandise transported in seller's own trucks or those of its affiliates is sold f.o.b. delivery point.

CELLULOSIC STAPLE & TOW

ACETATE

Celanese Corp. of America

Current Prices

Effective March 2, 1959

Staple

(Most Deniers Available in Bright or Dull Luster)

Celanese Acetate Staple	
3, 5.5 & 8 Denier (Regular Crimp, Type HC, Type D)	$.36
2, 12 & 17 Denier (Regular Crimp, Type HC, Type D)	.37
35 Denier	.38
50 Denier	.40
Type F—5,5, 8, 12 & 17 Denier	.35
Type K—(Available under Celanese License Agreement)	.39
5/8" to 7/8" length (All Deniers)	.03 (Premium)
35 Denier Flat Filament Acetate	.40
Non-Textile Acetate Fibers	.29*

Tow (Celatow)

3, 5.5 & 8 Denier	$.37
2, 12 & 17 Denier	.38
35 Denier	.40
35 Denier Flat Filament Acetate Tow	.42
50 Denier	.42

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A. east of Mississippi River. Transportation prepaid to any U.S.A. destination west of Mississippi River, but charge is made for the portion of transportation from river crossing nearest customer's location.

Prices subject to change without notice.

All previous prices withdrawn.

* No transportation allowed (F.O.B. shipping point.)

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

Celanese Corp. of America

Current Prices

Effective March 17, 1958

(Most Deniers Available in Bright or Dull Luster)

Arnel Triacetate Staple and Tow

Arnel Triacetate Staple	Bright & Dull
2.5 Individual Denier	$.55
5.0 Individual Denier	.55
Arnel Triacetate Tow	
2.5 Individual Denier 114,000 Total Denier	$.60
5.0 Individual Denier 90,000 Total Denier or 180,000 Total Denier	.60

Packaged on Ball Warps

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A. east of Mississippi River. Transportation prepaid to any U.S.A. destination west of Mississippi River, but charge is made for the portion of transportation from river crossing nearest customer's location.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our acknowledgments of orders.

CROSS-LINKED

Courtaulds (Alabama) Inc.

Effective April 14, 1959

Corval™

Man-made, cross-linked, cellulosic staple,
Bright and Dull, 1½, 3 and 5½ denier — $.40 per lb.

Topel®

Man-made, cross-linked, cellulosic staple,
Bright and Dull, 1½, 3 and 5½ denier — $.37 per lb.

Terms: Net 30 days f.o.b. LeMoyne, Alabama; Minimum transportation allowed to points in U.S.A. east of Mississippi River.

RAYON

American Viscose Corp.

Current Prices

Rayon Staple

	Bright and Dull
Regular	$ .33
"Viscose 22"	.33
Extra Strength 1.0 Denier	.36
"Viscose 32A"	.36
"Avisco XL" 1.0 Denier	.42
1.5 & 3.0 Deniers	.39
"Avisco Crimped" 1.25 Denier	.36
3.0 & 5.5 Deniers	.34
8.0 & 15.0 Deniers	.35
"Avisco Super L" 8.0, 15.0 & 22.0 Deniers	.36

COLORSPUN STAPLE

	1.5 Denier 1 9/16" Code	Price
Sea Foam	517	47¢
Spun Gold	614	47¢
Cascade	419	42¢
Silver Gray	208	42¢
Bridal Rose	710	42¢
Pale Pink	708	42¢
Rosewood	835	47¢
Bisque	803	42¢
Champagne	833	42¢
Sandalwood	802	42¢
Apple Red	700	58¢
	3.0 Denier 2"	
Mint Green	505	47¢
Pale Pink	708	42¢
Bisque	803	42¢
Sandalwood	802	42¢
Nutmeg	801	47¢
Gold	603	47¢
Turquoise	408	42¢
Wine	304	59¢
Gray	208	42¢
Spice Brown	800	47¢

Rayon Tow

Grouped Continuous Filaments (200,000 Total Denier)

1.5, 3.0 & 5.5 Denier Per Filament	.35
9.0 Denier Per Filament	.37

Terms: Net 30 days.

American Enka Corp.

Current Prices Effective 1/1/58

Rayon Staple

	Brt.	Dull
Regular		
1.5 and 3 denier	$ .31	$ .31
Crimped		
8 denier	.34	...
15 denier	.34	.34

Celanese Corp. of America

Current Prices

Effective Dec. 3, 1957

Rayon Tow

	Bright & Dull
1.5, 3, 5.5 D.P.F. Total denier 200,000	.33
8 D.P.F. Total denier 207,000	.35

Terms: Net 30 days. Transportation prepaid or allowed to any destination in U.S.A. East of Mississippi River. Transportation prepaid to any U.S.A. destination West of Mississippi River, but charge is made for the portion of transportation from river crossing nearest customer's location.

Prices subject to change without notice.

All previous prices withdrawn.

Note: Prices on unlisted items can be obtained upon request.

Orders are subject to conditions of sale appearing on our Acknowledgments of Orders.

Courtaulds (Alabama) Inc.

Effective April 14, 1959

Rayon Staple

	Bright	Dull
1½ and 3 denier	$.33	$.33
Available in 1⅛", 1-9/16" and 2".		

Crimped Rayon Staple

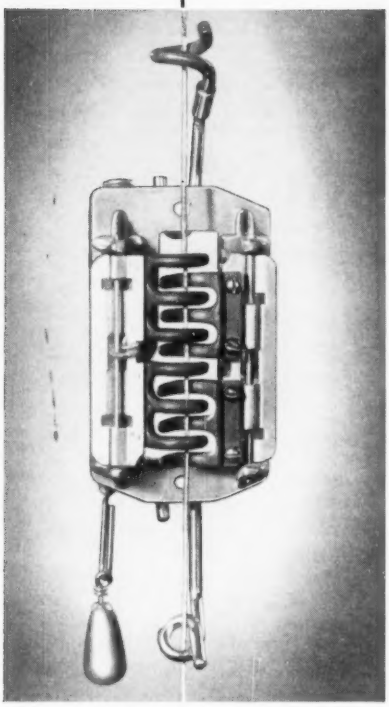
3 and 5½ denier	$.34	$.34
Available in 1-9/16" and 3".		
3 denier		.34
Available in 2".		

"Coloray"® Spun Dyed Rayon Staple

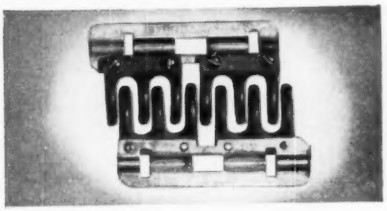
	1½ Den. 1-9/16"	3 Den. 2"	Price per Lb.
	(Code numbers for color and denier)		
Black	1404	1419	39¢
Tan	8004	8019	39¢
Medium Brown	8804	8819	39¢
Silver Grey	1004	1019	39¢
Mocha	7704	7719	39¢
Spicenut	7804	7819	39¢

try
HEANIUM®

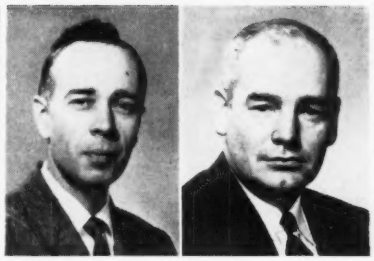
HEANIUM TENSION FINGERS AND PIGTAILS FOR TENSION ASSEMBLIES ELIMINATE YARN DAMAGE



If guide wear is a problem in your mill . .
try HEANIUM T-3-F FINGER ASSEMBLIES



HEANY INDUSTRIAL CERAMIC CORP.
NEW HAVEN 3, CONNECTICUT



H. F. Elsom R. D. Williams

Howard F. Elsom has been appointed group leader for textile product development at Celanese Corp. of America and in the company's fibers division **Dr. Robert D. Williams** has been appointed manager of product development.

Dr. Gerald E. Herrnstadt has been elected vice president of production and product development of Artloom Industries, Inc.

Thomas J. Ratajczak has become southern district manager and **Charles P. Van Name** technical director of Berkshire Color & Chemical Co.'s newly opened southern branch office in Charlotte.

Royden Walters has been elected vice president of Saco-Lowell Shops and **John E. Johnson** and **Henry W. Harding** have been elected directors. **John S. McMullan** has been promoted to purchasing agent for Saco-Lowell's Gear and Machine Division, succeeding **W. H. Kinard**, retired.

Deane A. Anderson has been appointed sales representative for the Stanley Steel Strapping Division of The Stanley Works.

Dr. H. Bunde has assumed the position of vice president of the Unde Corp. and has become the technical and scientific representative in the United States for Farbwerke Hoechst AG, succeeding **Dr. Hans Hoyer** who has returned to the company's home office in West Germany.

Stanley Rosner has been elected vice president in charge of the York, Pa. plant of United Piece Dye Works and **John F. Sheehan**, treasurer.

James W. Hoelscher has been appointed manager of market research for Wallerstein Co.

C. A. Potter Dies

C. A. Potter, 54, vice president and general manager of B. F. Perkins & Son, Inc., Holyoke, Massachusetts, died suddenly March 30, 1959, at Northampton, Mass. He started with the company in 1926 as a draftsman in the Engineering department, resigning in 1944 when he was chief engineer. He rejoined the company in 1953 as general manager.

Accurate

Yarn is under perfect tension from a central location. One dial adjustment changes tension uniformly at all tension stations.
The Lindly Electrotense: Simple, compact, inexpensive. Accurately controls yarn tension from zero to about 20 grams.

DIAL CONTROL of YARN TENSION

at Any Number of Stations!

The Lindly ELECTROTENSE is the new, inexpensive, electro-mechanical way to control yarn tension from almost zero to about 20 grams. A turn of a single, centrally located dial applies desired tension evenly and simultaneously at all tension stations.

What are the advantages?

The Lindly ELECTROTENSE permits easy, instant change of yarn tension. It results in more uniform beams, more yarn per warp beam, less maintenance and machine down-time, fewer broken ends and better cloth.

GET THE FULL FACTS ON THIS NEW TIME-SAVING, QUALITY-IMPROVING, COST-CUTTING LINDLY SYSTEM. WRITE, WIRE OR PHONE TODAY!

It Pays to Know LINDLY the Lindly Count

LINDLY & COMPANY, INC.
248 HERRICKS ROAD
MINEOLA, NEW YORK

Dark Brown	8604	8619	40¢
Aqua	4704	4719	40¢
Rose	5804	5819	40¢
Dawn Pink	5904	5919	40¢
Ecru	7904	7919	40¢
Slate Grey	0804	0819	43¢
Light Blue	4004	4019	44¢
Sulphur	2004	2019	44¢
Nugget	2304	2319	44¢
Apple Green	5104	5119	45¢
Sage	5304	5319	45¢
Crystal Blue	3904	3919	45¢
Peacock Blue	4604	4619	46¢
Medium Blue	4204	4219	48¢
Dark Blue	4404	4419	49¢
Hunter Green	5404	5419	49¢
Indian Yellow	2504	2519	49¢
Pink	6004	6019	50¢
Turquoise	4804	4819	50¢
Malachite Green	5204	5219	51¢
Red	7004	7019	56¢

(In addition to the above, Black is also available in:
1½ den. 1⅛" (1401) 3 den. 1-9/16" (1416)
3 den. 1⅛" (1413) 5½ den. 3" (1429)

Terms: Net 30 days f.o.b. LeMoyne, Alabama; Minimum transportation allowed to points in U.S.A. east of Mississippi River.

The Hartford Rayon Co.

Div. Bigelow-Sanford Carpet Co., Inc.

Rayon Staple

Effective November 3, 1958

REGULAR

1.5 denier Bright	
1 9/16", 2"	.31

VISCALON 66 (Crimped)

8 denier 3" Bright	.34
15 denier 3" Bright	.34
15 denier 3" Dull	.34

"KOLORBON"—Solution Dyed Rayon Staple—3" and 6"

	8 Denier Bright	15 Denier Dull	15 Denier Bright
Cloud Grey	45¢	45¢	....
Sandalwood	45¢	45¢	....
Nutria	45¢	45¢	....
Sea Green	45¢	45¢	....
Mint Green	45¢	45¢	....
Champagne	45¢	45¢	....
Midnight Black	45¢	....	45¢
Gold	48¢	48¢	....
Turquoise	45¢	45¢	....
Melon	48¢	48¢	....
Capri Blue	45¢	45¢	....
Charcoal Grey	45¢	45¢	....
Coco	46¢	46¢	....
Sable	47¢	....	47¢
Tangerine	65¢	....	65¢
Chinese Red	65¢	....	65¢
Larkspur Blue	45¢	45¢	....
Royal Blue	65¢	....	65¢
Lemon Peel	54¢	54¢	54¢
Kelly Green	54¢	54¢	54¢
Bitter Green	65¢	....	65¢

Terms: Net 30 days. Prices are quoted f.o.b. shipping point, lowest cost of transportation allowed, or prepaid. To points West of the Mississippi, lowest cost of transportation allowed to the Mississippi River crossing.

North American Rayon Corporation

Current Prices

Rayon Staple

Super High Tenacity	Bright
No. 1 (Unshrunk)	
1, 1.5 & 3 deniers	.40
No. 2 (Preshrunk)	
1, 1.5 & 3 deniers	.40

Rayon Tow

Super High Tenacity	
2200 denier, 1.0 and 1.5 D/F	57.5
4400 denier, 1.0 and 1.5 D/F	47.5

NON CELLULOSIC YARN

NYLON

Allied Chemical Corporation

Caprolan®

Effective April 15, 1959

Denier	Filament	Turn/In.	Twist	Type**	Package	1st Grade Price/Lb.
200	16	1½	Z	B	Cone	$1.49
840	136	½	Z	HBT	Aluminum Tube	1.20
840	136	½	Z	HBT	Beams	1.20
1050	56	½	Z	HB	Aluminum Tube	1.24
2100	112	½	Z	HB	Aluminum Tube	1.20
Heavy Yarn						
2100	408	0	O	HB	Paper Tube*	$1.18
2500	408	0	O	HB	Paper Tube*	1.18
3360	544	0	O	HB	Paper Tube*	1.17
4200	680	0	O	HB	Paper Tube*	1.17
4200	224	0	O	HB	Paper Tube*	1.19
5000	816	0	O	HB	Paper Tube*	1.17
5000	280	0	O	HB	Paper Tube*	1.19
5800	952	0	O	HB	Paper Tube*	1.17
7500	1224	0	O	HB	Paper Tube*	1.16
10000	1632	0	O	HB	Paper Tube*	1.16
15000	2448	0	O	HB	Paper Tube*	1.16

Terms—Net 30 days.
Prices subject to change without notice.
All prices quoted F.O.B. Shipping Point.
Following are invoiced as a separate item.
Bobbins—45 cents each.
Aluminum Tubes—40 cents each.
Beams—$220.00 each.
Cradles for Beams—$53.00.
* Paper Tubes non-returnable, no charge.
** Type is used to describe luster and tenacity

B—Bright.
H—High Tenacity.
T—Heat Stabilized.

Minimum transportation charges allowed and prepaid in continental United States, excluding Alaska.

American Enka Corporation

Enka Nylon Yarn Prices
Effective August 19, 1958

Den/Fil	Twist	Luster	Type	Tenacity	Pkg.	Net Wt. Pkg.	Price/Pound Std.	Sub.
15 monofil	0.5Z	Semi-dull	9506	Normal	Pirn	1 lb.	$5.25	$5.00
15 monofil	0.5Z	Semi-dull	9506	Normal	Pirn	2 lb.	5.25	5.00
15 monofil	0.5Z	Semi-dull	9506	Normal	Beam	....	5.36	....
15 monofil	0.5Z	Dull	9514	Normal	Pirn	1 lb.	5.30	5.05
15 monofil	0.5Z	Dull	9514	Normal	Pirn	2 lb.	5.30	5.05
15 monofil	0.5Z	Dull	9514	Normal	Beam	....	5.41	....
15/2	0.5Z	Semi-dull	9518	Normal	Pirn	1 lb.	7.37	6.70
18/2	0.5Z	Semi-dull	....	Normal	Pirn	....	6.65	6.10
20 monofil	0.5Z	Semi-dull	9524	Normal	Pirn	1 lb.	4.95	4.50
20/2	0.5Z	Semi-dull	9478	Normal	Pirn	1 lb.	5.55	5.05
30/4	0.5Z	Semi-dull	....	Normal	Pirn	....	2.62	2.42
30/6	0.5Z	Semi-dull	9466	Normal	Pirn	2 lb.	2.36	2.21
40/8	0.5Z	Semi-dull	9448	Normal	Pirn	2 lb.	2.01	1.91
40/8	0.5Z	Semi-dull	9448	Normal	Beam	....	2.11	....
40/10	0.5Z	Dull	9502	Normal	Pirn	2 lb.	2.06	1.96
40/10	0.5Z	Dull	9502	Normal	Beam	....	2.16	....
50/13	0.5Z	Semi-dull	9528	Normal	Pirn	2 lb.	1.91	1.76
70/32	0.5Z	Semi-dull	9622	Normal	Pirn	2 lb.	1.71	1.66
100/32	0.5Z	Semi-dull	9652	Normal	Pirn	2 lb.	1.65	1.60
200/16	0.6Z	Bright	9826	Normal	Cone	4 lb.	1.49	1.44
200/16	0.5Z	Bright	9826	Normal	Beam	....	1.54	....
200/34	0.6Z	Bright	9832	Normal	Cone	4 lb.	1.49	1.44
200/34	0.5Z	Bright	9832	Normal	Beam	....	1.54	....

Pirns charged at $.25 or $.45 each, depending on type. Deposit refunded upon return of pirn in good condition. Cones are non-returnable. Beams and cradles are deposit carriers and remain property of American Enka Corporation.

Terms: Net 30 days. Minimum common carrier transportation charges will be pre-paid and absorbed to the first destination on or east of the Mississippi River. In pre-paying transportation charges, seller reserves the right to select the carrier used.

The Chemstrand Corp.

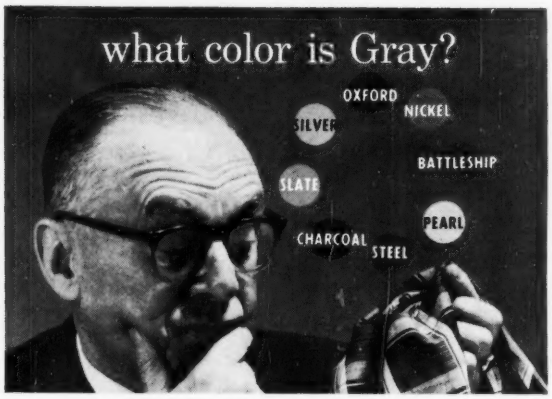
Current Prices
Effective June 2, 1958

Denier	Filament	Twist	Type*	Package	Standard Price/Lb.	Second Price/Lb.
10	1	O	SD	Bobbins	$8.42	$7.81
15	1	O	SD	Bobbins	5.25	5.00
15	1	O	SD	Spools	5.36	....
15	1	O	D	Bobbins	5.30	5.00
15	1	O	D	Spools	5.41	....
20	7	Z	D	Bobbins	2.96	2.61
30	10	Z	SD	Bobbins	2.36	2.21
30	10	Z	D	Bobbins	2.41	2.21
30	10	Z	HSD	Bobbins	2.36	2.21
30	26	Z	SD	Bobbins	2.49	2.21
40	7	Z	SD	Bobbins	2.11	1.81
40	10	Z	SD	Bobbins	2.01	1.91
40	13	Z	SD	Bobbins	2.01	1.91
40	13	O	SD	Draw Wind	2.01	1.91
40	13	Z	SD	Spools	2.11	....
40	13	Z	D	Bobbins	2.06	1.96
40	13	Z	D	Spools	2.16	....
50	17	Z	SD	Bobbins	1.91	1.76
50	17	Z	SD	Draw Wind	1.91	1.76
70	34	Z	SD	Bobbins	1.71	1.66
70	34	O	SD	Draw Wind	1.71	1.66
70	34	Z	SD	Spools	1.81	....
70	34	Z	B	Bobbins	1.71	1.66
70	34	O	B	Draw Wind	1.71	1.66
70	34	Z	D	Bobbins	1.76	1.66
70	34	Z	D	Spools	1.86	....
70	34	Z	HB	Bobbins	1.76	1.66
80	26	Z	SD	Bobbins	1.71	1.60
100	34	Z	SD	Bobbins	1.65	1.60
100	34	Z	SD	Spools	1.75	....
100	34	Z	HB	Bobbins	1.70	1.60
140	68	Z	SD	Bobbins	1.60	1.55
140	68	Z	SD	Spools	1.70	....
140	68	Z	B	Bobbins	1.60	1.55
200	34	Z	B	Bobbins	1.49	1.44
200	34	O	B	Draw Wind	1.49	1.44
210	34	Z	HB	Bobbins	1.49	1.44
210	34	O	HB	Draw Wind	1.49	1.44
210	34	Z	HB	Spools	1.54	....
210	34	Z	HB	Beams	1.54	....
210	34	Z	RHB	Bobbins	1.59	1.54
260	17	Z	HB	Bobbins	1.49	1.39
260	17	Z	HB	Spools	1.54	....
420	68	Z	HB	Bobbins	1.39	1.29
520	34	Z	HB	Bobbins	1.39	1.29
630	102	Z	HB	Bobbins	1.39	1.29
780	51	Z	HB	Bobbins	1.39	1.29
840	140	Z	HB	Beams	1.20	1.15
840	140	Z	HB	Tubes	1.20	1.13
840	140	O	HB	Draw Wind	1.20	1.13
840	140	Z	RHB	Beams	1.20	1.15
840	140	Z	RHB	Tubes	1.20	1.13
1040	68	Z	SD	Tubes	1.24	1.14
1040	68	Z	HB	Tubes	1.24	1.14
1680	280	Z	HB	Tubes	1.12	....
2080	136	Z	SD	Tubes	1.20	....
15120	2520	Z	RHB	Tubes	1.16	....

* *Types*: D—Dull; SD—Semi-dull; B—Bright; H—High tenacity.

Bobbins are invoiced at 25¢ or 45¢ each, depending on type; tubes are invoiced at 40¢ each; spools invoiced at $77.00 and $95.00 depending on type; and beams and crates for beams are invoiced at $220 and $25 respectively.

Prices subject to change without notice.



At ATLANTIC color specified is color delivered . . . assured by superior techniques and facilities acknowledged in the industry.

YARN DYEING

Rayon • Nylon • Acetate • Stretch Yarns
Cakes • Packages • Skeins

Custom-matched colors. Large dye batches.
Any degree of color fastness. Packaged as desired.

PROMPT DELIVERY

Atlantic
Rayon Corporation

125 WEST 41st ST., NEW YORK 36, LONGACRE 3-4200
PLANT: 86 CRARY ST., PROVIDENCE, R. I.

Lacemaker

(Continued from Page 32)

ing the range of end uses for lace produced on the machine.

The new machine, it is pointed out, can be made to operate with less than 24 bars—operation with 14 or 18 bars is perfectly feasible. Speed of operation of the new 24 bar machine is high—a test machine at Kidde's plant has run successfully at better than 300 courses per minute. On difficult patterns, according to Kidde, the new machine has run steadily eight hours a day for as long as five weeks producing a fine quality of lace.

The machine produces 100 inch wide goods, and Kidde, on request, will make wider machines up to 124 inches. The range of laces which can be produced on the Model E-24 includes a wide variety of overall patterns for dresses and similar end uses as well as lace edgings from ¼ inch to six inches wide.

Another development recently announced by Kidde which is expected to accelerate the use of raschel machines for lace making has been a substantial reduction in the cost of links for pattern chains. Up to the present time, the cost of pattern chains (some run as high as $7,000) has been the biggest stumbling block in the use of raschel lace knitters. Lower cost chains, Kidde believes, will stimulate manufacturers to set up new patterns and shift with greater rapidity from one pattern to another, thus increasing the versatility of lace goods which can be turned out with raschel machines.

In addition to lace making, Kidde's raschel knitters are used for producing elastic fabrics for foundation garments; for tulle, nettings and veilings; for dish cloth fabrics, shoe cloths, sport shirtings and other knitted constructions.

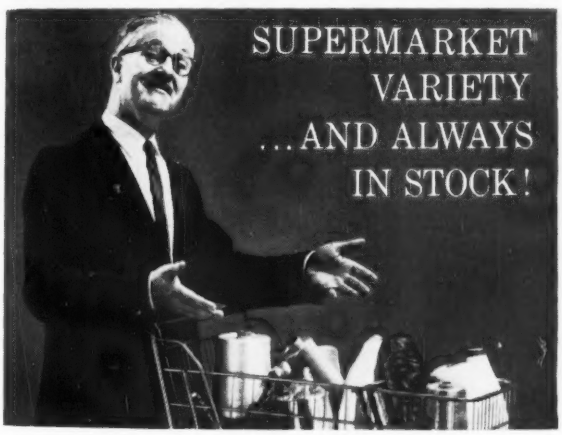
New Corn Yields Better Starch

Development in research quantities of a new type of corn with good possibilities for production of new types of starches with application in many industries, has been announced by National Starch Products, Inc., and American Maize-Products Co. The project has been under way since 1953.

Preliminary estimates show that starch manufactured from the new corn, known as amylomaize, indicate the following possibilities in the near future: use in water soluble transparent film wrapping material; use as a packaging material for water-dispersible products such as dyes, detergents, insecticides, etc., and use in non-water-soluble types for the coating and surface treatment of paper and paper products.

Other possibilities include: use of new starches as an integral part of paper; use as a permanent finish for fabrics; use in low cost fabrics made from a combination of cotton and corn starch, and use in wood-like structural materials such as wall board and building board.

The economic appraisals of the new starch's immediate and future potentialities are suggested by its similarity with cellulose. Currently, the amylose content of starch from the newly-developed corn is 55%. The starches show superior performance to previous starches in all uses where film formation is required. As the amylose content of the starch approaches 100% as a result of the genetic research activities now under way, it was indicated, product applications will be expanded. *For further information write the editors.*



Delivered immediately!

RAYON • NYLON • ACETATE YARNS
graded and inferiors—all put ups.

MALORA® METALLIC YARNS
supported and unsupported

THROWN YARNS

HELANCA® STRETCH YARNS
NYLON • DACRON

Malina
COMPANY

® T. M.

125 WEST 41st STREET, NEW YORK 36, LOngacre 3-4200

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

Nylon Yarn

Denier & Filament	Turns/Inch & Twist	Type	Package	1st Grade	2nd Grade
7-1	0	200	Bobbin	$9.47	$8.82
10-1	0	200	Bobbin	8.42	7.82
12-1	0	200	Bobbin	7.35	6.85
15-1	0	200	Beam	5.36	....
15-1	0	200	Bobbin	5.25	5.00
15-1	0	680	Beam	5.41	....
15-1	0	680	Bobbin	5.30	5.00
20-1	0	200	Bobbin	4.95	4.50
14-2	0.2Z	200	Bobbin	7.90	7.30
17-2	0.2Z	200	Bobbin	7.05	6.50
20-2	0.2Z	200	Bobbin	5.55	5.05
15-3	0.2Z	200	Bobbin	6.10	5.60
21-3	0.2Z	200	Bobbin	5.48	5.05
20-7	0.5Z	200	Bobbin	2.91	2.61
20-7	0.5Z	200	Beam	3.02	....
20-7	0.5Z	680	Bobbin	2.96	2.61
20-7	0.5Z	680	Beam	3.07	....
20-20	0.7Z	209	Bobbin	6.00	....
28-4	0.2Z	200	Bobbin	2.81	2.61
30-10	0.5Z	200	Bobbin	2.36	2.21
30-10	0.5Z	200	Tricot Bms.	2.46	....
30-10	0.5Z	300	Bobbin	2.51	2.36
30-10	0.5Z	680	Bobbin	2.41	2.21
30-10	0.5Z	680	Tricot Bms.	2.51	....
30-26	0.5Z	200	Bobbin	2.49	2.21
40-1	0	100	Bobbin	4.03	3.75
40-7	0.5Z	200	Bobbin	2.11	1.91
40-10	0.5Z	200	Bobbin	2.01	1.91
40-13	0.5Z	200	Bobbin	2.01	1.91
40-13	0.5Z	200	Tricot Bms.	2.11	....
40-13	0.5Z	400	Bobbin	2.13	1.90
40-13	0.5Z	680	Bobbin	2.06	1.96
40-13	0.5Z	680	Tricot Bms.	2.16	....
40-34	0.5Z	200	Bobbin	2.21	1.81
50-10	0.5Z	200	Bobbins	2.11	1.76
50-17	0.5Z	100/200	Bobbin	1.91	1.76
50-17	0	200	Tubes	1.91	1.76
50-17	0.5Z	680	Bobbin	2.01	1.76
60-20	0.5Z	200	Bobbin	1.82	1.65
60-34	0.5Z	300	Bobbin	1.86	1.76
70-17	0.5Z	200	Bobbin	1.71	1.66
70-34	0	100	Tubes	1.71	1.66
70-34	0.5Z	100/200	Bobbin	1.71	1.66
70-34	0	105/205	Paper Tube	1.71	1.66
70-34	0	200	Tubes	1.71	1.66
70-34	0.5Z	280	Bobbin	1.71	1.66
70-34	0.5Z	300	Bobbin	1.76	1.66
70-34	0.5Z	680	Bobbin	1.76	1.66
70-34	0	680	Tubes	1.76	1.66
80-26	0.5Z	200	Bobbin	1.71	1.60
90-26	0.5Z	200	Bobbin	1.76	1.66
100-34	0.5Z	200	Bobbin	1.65	1.60
100-34	0.5Z	300	Bobbin	1.70	1.60
100-34	0	300	Tubes	1.70	1.60
100-34	0.5Z	680	Bobbin	1.70	1.60
100-50	0.5Z	200	Bobbin	1.71	1.60
110-50	0.5Z	200	Bobbin	1.71	1.60
140-68	0.5Z	100	Bobbins	1.60	1.55
140-68	0	200	Tubes	1.60	1.55
140-68	0.5Z	200	Bobbin	1.60	1.55
140-68	0	205	Tube	1.60	1.55
140-68	0.5Z	300	Bobbin	1.65	1.55
200-20	1Z	100	Bobbin	1.49	1.44
200-34	0	100	Tubes	1.49	1.44
200-34	0.7Z	100	Bobbin	1.49	1.44
200-34	0	105	Tube	1.49	1.44
200-34	0.7Z	680	Bobbin	1.54	1.44
200-68	0.7Z	100/200	Bobbin	1.56	1.44
210-34	0	300	Tubes	1.49	1.44
210-34	0.7Z	300	Bobbin	1.49	1.44
210-34	0.7Z	300	Beam	1.54	....
210-34	0	305	Tube	1.49	1.44
210-34	0.7Z	330	Bobbin	1.59	1.44
260-17	1Z	300	Bobbin	1.49	1.39
400-68	0.7Z	100	Bobbin	1.39	1.29
420-68	1Z	300	Bobbin	1.39	1.29
520-34	1Z	300	Bobbin	1.39	1.29
630-102	0.7Z	300	Bobbin	1.39	1.29
780-51	1Z	300	Bobbin	1.39	1.29
800-140	0.5Z	100	Bobbin	1.39	1.29
840-140	0.5Z	300/700	Al. Tbs	1.20	1.13
840-140	0.5Z	300/700	Beam	1.20	....
1680-280	0.5Z	300/700	Al. Tbs. & Beams	1.12	....

Color-Sealed Yarn

Denier & Filament	Turns/Inch & Twist	Type	Package	1st Grade	2nd Grade
30-10	0.5Z	140	Bobbin	$2.71	$2.56
40-13	0.5Z	140	Bobbin	2.36	2.16
70-34	0.5Z	140	Bobbin	2.06	2.01
100-34	0.5Z	140	Bobbin	2.00	1.95
100-34	0	140	Tubes	2.00	1.95
200-34	0.7Z	140	Bobbin	1.84	1.79
260-17	1Z	140	Bobbin	1.84	1.79

Industrial Yarn				Price/Lb.
840-140	0.5Z	707	Cone	$1.13
2520-420	0	700	Paper Tube	1.18
4200-700	0	700	Paper Tube	1.17
5040-840	0	700/707	Paper Tube	1.17
7560-1260	0	700/707	Paper Tube	1.16
10080-1680	0	700/707	Paper Tube	1.16
15120-2520	0	700/707	Paper Tube	1.16

These prices are subject to change without notice. Terms: Net 30 Days.

Types

Type 100—Bright, normal tenacity.
Type 105—Bright, normal tenacity, low shrinkage (5-7%)
Type 140—Bright, color-sealed, black, normal tenacity.
Type 200—Semidull, normal tenacity.
Type 205—Semidull, normal tenacity, low shrinkage (5-7%)
Type 209—Semidull, normal tenacity, improved light durability and dye light fastness.
Type 300—Bright, high tenacity.
Type 305—Bright, high tenacity, low shrinkage (5-7%)
Type 330—Bright, high tenacity, more heat & light resistant.
Type 400—Semidull, high tenacity.
Type 420—Semidull, high tenacity, high modulus, no crimp
Type 680—Dull, normal tenacity.
Type 700—Bright, high tenacity.
Type 707—Bright, high tenacity (over 8.5 gpd) cordage yarn.

Freight Terms—Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

Following are invoiced as a separate item.
Bobbins—25 cents or 45 cents depending on type
Aluminum Tube—40¢ each
Draw Winder Tubes—$.70 or $1.00 depending on type
Tire Cord Beams—$220.00 each
Cradles for Tire Cord Beams—$115.00 each
Tricot Beams—$95.00 each
Cradles for Tricot Beams—$130.00 each
(Beams and Cradles are deposit carriers and remain the property of E. I. du Pont de Nemours & Co., Inc.)

POLYESTER

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

"Dacron"*

Denier & Filament	Turns/Inch	Luster	Type*	Tubes 1st Gr.
30-14	0	Bright	55	$2.71
30-20	0	Semidull	56	2.71
40-27	0	Semidull	56	2.31
40-27	0	Bright	55	2.31
40-27	0	Dull	57	2.36
70-34	0	Semidull	56	1.91
70-14	0	Bright	55	1.91
70-34	0	Bright	55	1.91
70-34	0	Dull	57	1.96
100-34	0	Semidull	56	1.84
140-28	0	Bright	55	1.79
150-34	0	Semidull	56	1.79
220-50	0	Bright	51	1.76
250-50	0	Bright	55	1.76
1100-250	0	Semidull	59	1.50
1100-250	0	Bright	51	1.50
1100-250	0	Bright	52	1.50

Terms: Net 30 days.

Domestic Freight Terms are F.O.B. shipping point, freight prepaid our route within the Continental limits of the U. S., excluding Alaska.

Yarn Types

* Type:
Type 51—Bright, high tenacity.
Type 52—Bright, high tenacity.
Type 55—Bright, normal tenacity.
Type 56—Semidull, normal tenacity.
Type 57—Dull, normal tenacity.
Type 59—Semidull, high tenacity.

Tubes are invoiced as a separate item at $.70 each.

* "DACRON" is DuPont's registered trade-mark for its polyester fiber.

SARAN FIBERS

The Saran Yarns Company — Odenton, Maryland

The Hall Company (Selling Agent)
41 East 42 Street, New York 17, N. Y. (Oxford 7-8996)

Current Prices:

CONTINUOUS FILAMENT

Type	Twist p. i.	Natural	Colors
1240/10	3	$1.32	$1.37
750/20*	3	1.75	1.80

* For filter fabrics and other industrial purposes only.

F.O.B. Odenton, Maryland.
Terms: Net 30 days.

NON CELLULOSIC STAPLE & TOW ACRYLIC

The Chemstrand Corp.

Current Prices

"Acrilan"*

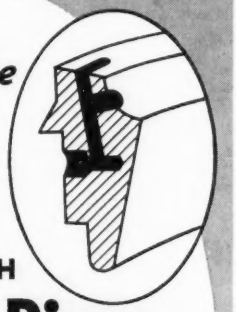
Effective January 1, 1959

	Regular Acrilan	Acrilan 16
2.0 denier Semi-Dull and Bright staple & tow	$1.24	$1.24
2.5 denier Hi-Bulk Bright and Semi-dull staple and tow	1.18	1.18
3.0 denier Bright & Semi-dull staple & tow	1.18	1.18
5.0 denier Bright & Semi-dull staple & tow	1.18	1.18
8.0 denier Bright & Semi-dull staple	1.18	1.18
15.0 denier Bright & Semi-dull staple	1.01	1.05

Terms: Net 30 days. Freight prepaid to points east of the Mississippi River.

* "Acrilan" is Chemstrand's registered trademark for its acrylic fiber.

Modernize
and
Economize
with
DIAMOND FINISH
Conical Rings



Lubricated by capillary action or automatic pressure.

Use any make of conical traveler.

STANDARD SIZES ON APPROVAL

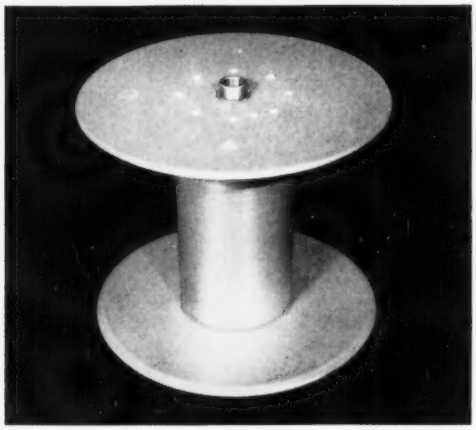
WHITINSVILLE (MASS.) SPINNING RING CO.

Makers of Spinning and Twister Rings since 1873

DIAMOND FINISH

Rep. for the Carolinas & Va.: W. K. SHIRLEY, P.O. Box 406, Belmont, N. C.
Rep. for Ala., Ga. & Tenn.: H. L. WILLIAMS, Box 222, West Point, Ga.

NO YARN TRAPPING WITH BRAZED ALUMINUM TWO POUND TAKE-UP BOBBIN



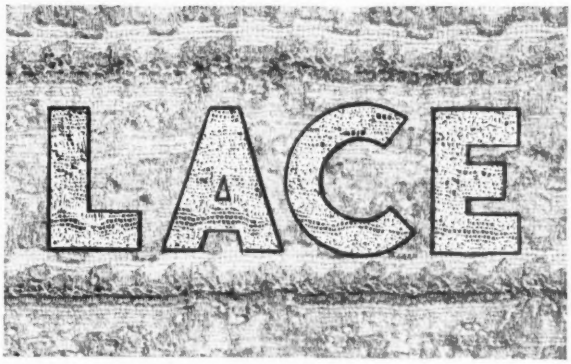
New aluminum take-up bobbin with barrel and heads brazed together into a single unit prevents yarn trapping. Exceptional strength at price no higher than ordinary bobbins.

Write us today for full details.

BW MACK **ALLENTOWN BOBBIN WORKS, INC.**

ALLENTOWN PENNSYLVANIA

"Graphtex" FOR



"Graphtex" is THE Scour for Removing Graphite from Nylon Lace!

Leatex

LEATEX CHEMICAL COMPANY
2727 N. HANCOCK ST., PHILADELPHIA, PA.

The Dow Chemical Company

Textile Fibers Department

Current Prices

"Zefran"*

2.0 denier Semidull & Bright—Staple only	$1.33
3.0 denier Semidull & Bright—Staple only	1.28
6.0 denier Semidull & Bright—Staple only	1.20

Terms: Net 30 days.

Transportation Terms: F.O.B. shipping point—Freight prepaid our route to points east of the Mississippi River within the continental limits of the U. S., for points west of the Mississippi River crossing nearest purchaser's mill if shipped overland or port of exit of purchaser's choice east of the Mississippi River.

* "Zefran" is Dow's registered trademark for its acrylic alloy fiber.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

"Orlon"** Acrylic Staple & Tow

Type 42	1st Grade
1.0 Denier Semidull	$1.28
2.0 Denier Semidull & Bright	1.28
3.0 Denier Semidull & Bright	1.28
3.0 Denier Semidull Color-sealed Black	1.63
6.0 Denier Semidull & Bright	1.18
6.0 Denier Color-sealed Black	1.55
4.5 Denier Semidull	1.18
10.0 Denier Semidull & Bright	1.18

Tow—Total Denier 470,000

Staple Lengths—1½", 2", 2½", 3", 4½"

High Shrinkage Staple price as Regular Staple

Type 25 $1.18

This product is designed for *Cotton/Rayon System* Spinning and is 2.5 denier, 1½" semidull regular shrinkage staple.

Type 39 $.94

This product is designed for *woolen system spinning* and is a blend of deniers (average 4.2) with a variable cut length.

Type 39A $.99

This product is designed for *woolen system spinning* and is a blend of predominately fine deniers (average 2.4) with a variable cut length.

Type 39B $.94

This product is designed for *woolen system spinning* and is a blend of predominately heavy deniers (average 6.5) with a variable cut length.

F.O.B. Shipping Point—Freight prepaid our route within the continental limits of the United States, excluding Alaska.

Eastman Chemical Products, Inc.
Tennessee Eastman Co.

Effective November 3, 1958

"Verel"* Staple and Tow

Deniers	Dull and Bright
2 and 3	$1.02 per pound
5, 8, 12, 16, and 20	.92
24 denier	.97

Prices are subject to change without notice.

Terms: Net 30 days. Payment—U. S. A. dollars.

Transportation charges prepaid or allowed to destination in continental United States, except Alaska. Seller reserves right to select route and method of shipment. If Buyer requests and Seller agrees to a route or method involving higher than lowest rate Buyer shall pay the excess of transportation cost and tax.

* "Verel" is a trade-mark of the Eastman Kodak Co.

The B. F. Goodrich Company
B. F. Goodrich Chemical Co.

DARVAN

Effective Nov. 21, 1958

Type	Price Per Pound Not Crimp Set	Crimp Set
3, 4½ and 6 Denier	$1.45	$1.50
1½, 2 Denier	$1.50	$1.55

Pack in 100 Lb. Bales, Net
Staple lengths 1½, 2, 3, 4½
Tow—90,000 Total Denier
Bright, Semi-dull, Dull

(Deniers and lengths of staple not listed above are available upon special request.)

Terms: Net 30 Days.

F.O.B. Shipping Point (Avon Lake, Ohio) Minimum freight prepaid our route to points east of the Mississippi River within the continental limits of the United States, for points west of the Mississippi River freight allowed to the Mississippi River crossing nearest purchaser's mill if overland, or port of exit of purchaser's choice east of the Mississippi River.

Union Carbide Chemicals Co.

Div. Union Carbide Corp.

Textile Fibers Dept.

Effective October 1, 1957

Dynel Staple & Tow

Natural Dynel	
3, 6, and 12 Denier, Staple and Tow	1.10 per lb.
24 Denier, Staple and Tow	1.05 per lb.
Dynel Spun with Light Colors:	
Blond or Gray Pewter	
3 and 6 Denier, Staple and Tow	1.30 per lb.
Dynel Spun with Dark Colors:	
Black, Charcoal, Brown, Carmel, Green, and Blue	
3 and 6 Denier, Staple and Tow	1.40 per lb.
Dynel Fiber (3 Denier only)	Add $.05 per lb. to above prices

Prices are quoted f.o.b. South Charleston, W. Va.

NYLON

American Enka Corp.

Effective August 19, 1958

Enka Nylon (Nylon Six Staple)

Denier	Luster	Length (Inches)	Price per pound
3	semi-dull	1⅛, 1½, 2, 2⅝, 3, 4½	$1.28
6	bright	3, 4½	1.28
8	bright	2⅝	1.15
10	bright	3	1.08
15	bright	3	1.08
15	semi-dull	3	1.08

Deniers and lengths of staple not listed above are available upon special request.

Terms: Net 30 days. Minimum common carrier transportation charges will be prepaid and absorbed to the first destination on or east of the Mississippi River. In prepaying transportation charges, seller reserves the right to select the carrier used.

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

Nylon Staple and Tow

Denier	Type	Staple Lengths	Tow Bundle	1st. Grade Price/Lb.	2nd Grade Staple Only
1.5	200	1⅛"—4½"	None made	$1.33	$1.18
1.5	201	1⅛"—4½"	None made	1.35	1.20
2.2	420	1½" only	None made	1.28	1.13
3.0	100/200	1⅛"—4½"	430M	1.28	1.13
3.0	101/201	1⅛"—4½"	455M	1.30	1.15
6.0	100	1⅛"—4½"	330M	1.28	1.13
6.0	101	1⅛"—4½"	345M	1.30	1.15
15.0	100	1½"—6½"	425M	1.08	....
15.0	101	1½"—6½"	None made	1.10	....
15.0	600	1½"—6½"	425M	1.10	....
15.0	601	1½"—6½"	None made	1.12	....

Staple lengths are restricted to the range shown opposite each denier above. The actual cut lengths within these ranges are as follows:

1⅛, 1½, 2, 2½, 3, 4½ and 6½

Types

Type 100 Bright, normal tenacity, not heatset.
Type 101 Bright, normal tenacity, heatset.
Type 200 Semidull, normal tenacity, not heatset.
Type 201 Semidull, normal tenacity, heatset
Type 420 Semidull, high tenacity, high modulus, no crimp.
Type 600 Dull normal tenacity, not heatset.
Type 601 Dull normal tenacity, heatset.
These prices are subject to changes without notice.
Terms—Net 30 Days.

Freight Terms—Terms are F.O.B. shipping point, freight prepaid our route within the continental limits of the United States, excluding Alaska.

Industrial Rayon Corp.

Effective August 18, 1958

Nylon Staple

1.5 denier	$1.33 per lb.
2, 3 and 6 denier	1.28 per lb.
8 denier	1.15 per lb.
15 and 22 denier	1.08 per lb.

Bright, semi-dull, and full-dull. Required lengths.

POLYESTER

E. I. du Pont de Nemours & Co.

Textile Fibers Dept.

Current Prices

"Dacron"* Staple and Tow

Denier	Luster	Type*	Length	Tow Bundle	1st Gr.
1.25	Semidull	54	1¼"-3"		$1.36
1.5	Semidull	64	Tow only	375M-600M	1.41
1.5	Semidull	54	1¼"-3" & Tow	375M-600M	1.36
3.0	Semidull	64	1¼"-4½" & Tow	375M-500M	1.41
3.0	Semidull	54	1¼"-4½" & Tow	375M-500M	1.36
4.5	Semidull	64	1¼"-4½" & Tow	375M-500M	1.36
4.5	Semidull	54	1¼"-4½" & Tow	375M-500M	1.31
6.0	Semidull	64	1¼"-4½" & Tow	375M-500M	1.36
6.0	Semidull	54	1¼"-4½" & Tow	375M-500M	1.31

* Type:
Type 54—Semidull, Normal Tenacity.
Type 64—Pill Resistant more Dyeable Staple for Worsted & Rayon Blends.

F. O. B. Shipping Point—Freight prepaid our route within the continental limits of the United States, excluding Alaska.

Eastman Chemical Products, Inc.

Tennessee Eastman Co. Effective September 15, 1958

"Kodel"*

1½ denier	$1.60
3 and 4½ denier	1.50

Terms: Net 30 days. Payment—U. S. A. dollars.

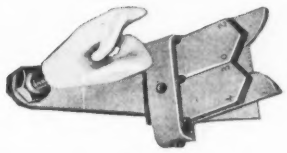
Transportation charges prepaid or allowed to destination in continental United States, except Alaska. Seller reserves right to select route and method of shipment. If Buyer requests and Seller agrees to a route or method involving higher than lowest rate Buyer shall pay the excess of transportation cost and tax.

Handy Yarn Analyzer

S. M. Ferrer, an advertising agency, has designed for its client, Nicetown Dye Works, a yarn analyzer.

The circular slide rule easily and quickly shows the characteristics of many natural and synthetic yarns to help knit-wear and other textile manufacturers select the ones best to meet particular requirements. *The analyzer is priced at $2 and may be obtained by writing to the editors.*

THREAD CLEANING



Type "F", illustrated, is only one of eight models in the D.F.D. family. Circulars of other types will be sent on request.

This "F" Type Cleaner has recently proved to be the most versatile of the eight different models of D.F.D. Cleaners, owing to its adaptability to the latest models of textile machines. For further information, ask for our brochure on Type "F", The Versatile Cleaner.

The unique D.F.D. system of reversible blades provides four sizes of openings with two blades, ten sizes with three blades and eighteen sizes with four blades. Cleaner designed to create oscillating motion of threads; prevents early cutting of hardened tool steel blades.

Write for Details

COLLINS

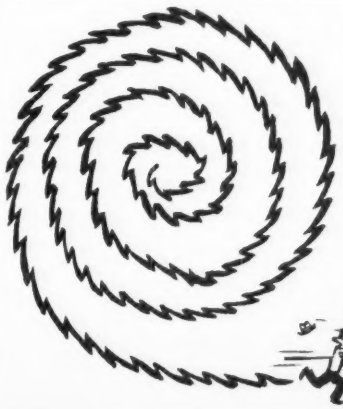
SUPPLY & EQUIPMENT CO. 39TH YEAR

1357-97 Monsey Ave. **Scranton 2, Pa.**

INDUSTRIAL ENGINEERS

• MODERNIZATION PROGRAMS • PLANT LAYOUTS
• MANAGEMENT PROBLEMS • WORK LOAD STUDIES
• COST REDUCTION REPORTS
• COST SYSTEMS • SPECIAL REPORTS

RALPH E. LOPER CO.
GREENVILLE, S. C., Dial CEdar 2-3868 • FALL RIVER, MASS., Dial OSborne 6-8261
Specializing in Textiles Since 1914



STATIC
GOT YOU RUNNING AROUND IN CIRCLES?

Safe, effective SIMCO static neutralizer bars and anti-static cleaning devices are *guaranteed* to solve your static problem . . . at low cost. Locating meters also available.

the SIMCO company
920 Walnut Street
Lansdale, Penna.

EMKAY CHEMICALS FOR YOUR TEXTILE PROCESSING

EMKAY MANUFACTURES:
• Emkabase • Emkalube • Emkasize • Rexo... • Re...
• Emkacide • Emk...net • Em...
• Emkafol
• Emkagen
• Emkalane
• Emkalite
• Emkalon • Emkap...n • Emkawate • Rexoqum • Rexoscour
• Rexosolve • Rexowax
• Rexoslip • Rexowet

DYEING DACRON® ARNEL® KODEL®!
NEW TECHNICAL BROCHURE AVAILABLE
WRITE FOR YOUR COPY TODAY

MANUFACTURING CHEMISTS
EMKAY CHEMICAL COMPANY
EMKA-PRODUCTS-REXO

EMKAY CHEMICAL COMPANY
319-25 Second St., Elizabeth, N. J. ELizabeth 2-7053 - 7695
IN CANADA: THOMAS ROSTRON & CO. 4577 MELROSE AVE. MONTREAL, CANADA

POLYVINYL ACETATE

American Viscose Corp. Effective October 1, 1956

"Vinyon"® Staple

3.0 denier	1½" unopened	$.80 per lb.
3.0 "	1¼" unopened	.80 per lb.
3.0 "	1¼" opened	.90 per lb.
3.0 "	2" opened	.90 per lb.
3.0 "	2" unopened	.80 per lb.
5.5 "	1" opened	.90 per lb.
5.5 "	3½" opened	.90 per lb.
5.5 "	3½" unopened	.80 per lb.

Terms: Net 30 days.

SARAN FIBERS

The Saran Yarns Company — Odenton, Maryland

The Hall Company (Selling Agent)

41 East 42 Street, New York 17, N. Y. (Oxford 7-8996)

Current Prices: Saran Staple

Type	Denier	Natural	Colors
2N	22	$0.70	$0.75
2N	16	.74	.79
3Q*	22	.63	.67

In any staple length 1½ to 6". Also 45 denier, 7" cut.

* For carpets and industrial fabrics.

F.O.B. Odenton, Maryland.

Terms: net 30 days.

METALLICS

Textile Fibers Dep't

The Dow Chemical Co., James River Div.

Williamsburg, Va.

Lurex Yarn Division Current Prices

#150 LUREX-MM* (Made with Metalized Mylar)

Width	1/128"	1/100"	1/64"	1/50"	1/32"
Silver					
Yield in Yds/Lb	42,400	35,300	23,200	16,600	10,500
1 Case to 1,999#	$10.65	$10.25	$7.80	$7.60	$7.35
2,000# to 4,999#	10.10	9.75	7.40	7.20	7.00
5,000# and over	9.90	9.55	7.25	7.05	6.85
Gold & White Gold					
Yield in Yds/Lb	37,900	30,000	19,200	15,000	9,400
1 Case to 1,999#	$10.90	$10.50	$8.00	$7.75	$7.60
2,000# to 4,999#	10.35	10.00	7.60	7.35	7.20
5,000# and over	10.15	9.75	7.45	7.20	7.05
Standard Colors					
Yield in Yds/Lb	37,500	29,500	19,100	15,400	9,300
1 Case to 1,999#	on	on	$9.00	on	$8.70
2,000# to 4,999#	Re-	Re-	8.55	Re-	8.25
5,000# and over	quest	quest	8.35	quest	8.10

#150 LUREX MF* (Mylar—Foil—Mylar)

Width	1/100"	1/64"	1/50"	1/32"
Silver				
Yield in Yds/Lb	26,000	18,700	13,900	9,300
1 Case to 1,999#	$7.80	$5.45	$5.25	$5.15
2,000# to 4,999#	7.40	5.15	5.00	4.90
5,000# and over	7.25	5.05	4.90	4.80
Gold, White Gold & Copper				
Yield in Yds/Lb	24,000	17,250	12,700	8,400
1 Case to 1,999#	$8.00	$5.60	$5.40	$5.30
2,000# to 4,999#	7.60	5.30	5.15	5.05
5,000# and over	7.45	5.20	5.00	4.90
Standard Colors				
Yield in Yds/Lb	25,000	17,500	13,000	8,700
1 Case to 1,999#	$8.75	$6.30	$6.15	$6.00
2,000# to 4,999#	8.30	6.00	5.85	5.70
5,000# and over	8.10	5.85	5.70	5.60

#260 LUREX* (Regular Butyrate)

Width	1/100"	1/80"	1/64"	1/50"	1/32"	1/16"
Gold, Silver & Copper						
Yield in Yds/Lb	16,400	13,000	10,500	8,200	5,200	2,600
1 Case to 1,999#	$4.50	$4.00	$3.35	$3.25	$3.00	$2.85
2,000# to 4,999#	4.30	3.80	3.20	3.10	2.85	2.70
5,000# and over	4.20	3.70	3.10	3.00	2.80	2.65
Standard Colors						
Yield in Yds/Lb	—	—	10,500	8,200	5,200	—
1 Case to 1,999#	—	—	$3.45	$3.35	$3.10	—
2,000# to 4,999#	—	—	3.30	3.20	3.00	—
5,000# and over	—	—	3.20	3.10	2.90	—
Multicolors						
Yield in Yds/Lb	—	13,000	10,500	—	5,200	—
1 Case to 1,999#	—	$4.30	$3.65	—	$3.30	—
2,000# to 4,999#	—	4.10	3.45	—	3.15	—
5,000# and over	—	4.00	3.40	—	3.10	—

A. LUREX*, LUREX-MM*, and LUREX MF* are the registered trademarks of The Dobeckmum Company, A Division of The Dow Chemical Company. Mylar is DuPont's polyester film.

B. Standard Colors:

L-941	Scarlet	L-981	Pink Opal
L-984	Turquoise	L-942	Peacock Blue
L-940	Emerald Green	L-983	Violet
L-861	Bronze	L-978	Gunmetal
2A-1	Multicolor	3A-2	Multicolor
4A-5	Multicolor	4A-7	Multicolor
6A-1	Multicolor	6A-2	Multicolor
L-869	Fuchsia	L-982	Blueflower
L-935	Royal Blue	L-980	Apple Green
L-1008	Purple	L-933	Copper
L-850	Jet	L-1007	Green Gold
3A-3	Multicolor	1A-3	Multicolor
4A-14	Multicolor	4A-4	Multicolor
6A-3	Multicolor	3A-4	Multicolor

C. Other colors available on a custom basis only for which a minimum firm order of 150 lbs. is required. Regular color prices will apply. After approval of color swatch, one sample run of 10 lbs. or over can be ordered with an up-charge of $2.00 per lb. over regular color prices.

D. LUREX-MM, LUREX-MF and regular LUREX is supplied on disposable spools having plastic end plugs with 3/8" I.D. holes. Spools contain approx. 1 lb. of yarn.

E. Cases contain 6 LUR-PAKS. Each LUR-PAK contains 6 one pound spools.

F. Yields are subject to variation of plus or minus 5%.

G. TERMS: 1% 10 days from date of invoice, Net 30 days, FOB shipping point. Minimum freight allowed on shipments of 100 pounds and over.

H. Items may be combined for quantity prices.

FAIRTEX CORPORATION

1808 Liberty Life Building

Charlotte 2, N. C.

December 1, 1958

1. Fairtex No. 260 (butyrate)—gold, silver and copper.

Width	Yield (per pound)	Price (per pound)
1/120"	21,000	$4.75
1/80"	13,000	4.00
1/64"	10,800	3.35
1/50"	8,400	3.25
1/32"	5,300	3.00
1/16"	2,600	2.85
1/8"	1,300	2.70

2. Fairtex with Mylar* No. 100V (2 ply), (metallized type)—silver only.

1/100"	48,000	11.25
1/80"	37,000	9.40
1/64"	31,000	8.50
1/50"	24,200	8.35
1/32"	15,500	8.20

Fairtex with Mylar* No. 150V (3 ply), (metallized type)—gold and silver.

1/100"	32,000	9.55
1/80"	25,000	8.15
1/64"	21,000	7.25
1/50"	16,400	7.05
1/32"	10,500	6.85

3. Fairtex with Mylar* No. 150F, (foil type)—gold and silver.

1/100"	28,000	7.25
1/80"	21,450	6.10
1/64"	17,200	5.05
1/50"	13,400	4.90
1/32"	8,600	4.80
1/16"	4,300	4.65

General Information and Conditions of Sale

1. Fairtex is supplied on 1 lb. disposable spools—48 spools per case and on ½ lb. disposable spools—100 spools per case.
2. Disposable spools have plastic heads with ⅜" I.D. holes.
3. Yields are subject to variation of plus or minus 5%.
4. Terms: 1%—10 days, net 30 days. Min. freight allowed on shipments of 100 pounds and over.
5. Colors available on above upon request: 35¢ per lb. additional on No. 260, 65¢ on 150V and 150F.
6. No quantity discounts on 100V, 150V and 150F qualities.

* Du Pont's registered trademark for polyester film.

Acquires Nemo Jet Cooker

Cocker Machine & Foundry Co. has acquired exclusive manufacturing and sales rights on the Nemo Jet Cooker. The cooker is said to eliminate the cooking of size in large batches and resultant variation in viscosity and film-forming properties. The cold mix is made in the usual way and piped to the jet cooker where just the amount needed is cooked instantly. This does away with the dumping of unused cooked sizes, lumps and hard size, and the need for control for cooking and storage kettles.

Installation is reported to be simple with steam requirements less than with methods generally used. Another advantage, Cocker Machine stated, is the large reduction in stream pollution, an important factor because of new ordinances being passed by many communities. *For further information write the editors.*

Yarn Sales Agents Named

Robert H. Griffith and his associate, Ish Payne, Jr., have been named by Ralph Gossett and Co. to represent the firm in the sale of metallic yarn manufactured by Nylco Products, Inc. Griffith and Payne will cover Georgia, Alabama, Tennessee, Kentucky, Mississippi and Texas. Gossett also has appointed Hubert O. Fry to represent the firm in the sale of nylon, Du Pont Dacron polyester fiber, rayon and acetate yarns distributed by Brawer Bros. Silk Co., Inc.

Business Service Section

Exclusively for Business, Laboratory and Mill Services; Positions and Men Wanted; Business Opportunities; Mill Properties Wanted or For Sale; Reconditioned Machinery and Equipment, etc.

CLASSIFIED RATES
Per Inch
2 columns to the page, each column 8 inches deep

1 Inch	$8.00
2 Inches	15.00
3 Inches	22.50
4 Inches	28.00
5 Inches	35.00
6 Inches	42.00
7 Inches	49.00
8 Inches	52.00

EMPLOYMENT SERVICE
Over 55 Years In Business

THE POSITION YOU WANT may be available right now. The demand for executives is increasing. Salaries are attractive. You are invited to send us your resume in confidence.

THE EXECUTIVE YOU NEED may be listed with us. Employers find our Service helpful and time saving.

Your phone call, wire or letter will bring prompt attention.

CHARLES P. RAYMOND SERVICE, INC.
Phone LIberty 2-6547 294 Washington St. Boston 8, Mass.

DACRON, NYLON, RAYON
& ACETATE
BOUGHT AND SOLD
YARNS
BERTNER YARN COMPANY
Empire State Bldg. New York City
Oxford 5-1170

Plan
NOW---
to advertise in our
SEPTEMBER REVIEW ISSUE
featuring our annual report on
How to make bigger profits
with man-made fibers
Everybody important in textiles will read it.
Your ad will get
MAXIMUM EXPOSURE
in
MODERN TEXTILES MAGAZINE

Calendar of Coming Events

May 2—Alabama Textile Operating Executives spring general meeting on slashing and weaving problems. Thach Auditorium, Auburn, Ala.
May 4—Nat'l Association Hosiery Manufacturers annual meeting. Claridge Hotel, Atlantic City, N. J.
May 4-8—Knitting Arts Exhibition. The Auditorium, Atlantic City, N. J.
May 5—93rd annual meeting Underwear Institute. Hotel Traymore, Atlantic City, N. J.
May 6—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.
May 12-14—Cotton Research Clinic. Grove Park Inn, Asheville, N. C.
May 12-16—Textile Institute annual conference. Scarborough, England.
May 13-16—Tufted Textile Manufacturers' Association annual convention. Hollywood Beach Hotel, Hollywood Beach, Fla.
May 18-23—National Cotton Week.
May 25-27—American Society for Quality Control convention. Public Hall, Cleveland, Ohio.
May 28-30—South Carolina Textile Manufacturers' Association annual meeting. The Cloister, Sea Island, Ga.
Jun. 3—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.
Jun. 4-5—Society of the Plastics Industry Film, Sheeting and Coated Fabrics Division conference. Concord Hotel, Kiamesha Lake, N. Y.
Jun. 9-12—Material Handling Institute's Exposition. Public Auditorium, Cleveland, Ohio.
Jun. 18-20—Southern Textile Association annual convention. Ocean Forest Hotel, Myrtle Beach, S. C.
July 13-17—Gordon Research Conferences, Textile sessions. Colby Junior College, New London, N. H.
Sept. 2—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.
Sep. 10-11—Fiber Society Inc. meeting. Princeton, N. J.
Sep. 11-12—Society Plastics Industry Midwest Section conference. French Lick Sheraton Hotel, French Lick, Ind.
Sep. 12-21—3rd International Textile Exposition. Milan, Italy.
Sep. 17-18—Chattanooga Yarn Association annual outing. Chattanooga, Tenn.
Sep. 28-29—American Gas Association textile processing symposium. Sedgefield Inn, Greensboro, N. C.
Oct. 1-2—Society Plastics Industry New England Section conference. Wentworth-by-the-Sea, Portsmouth, N. H.
Oct. 1-2—Textile Quality Control Association fall meeting. Grove Park Inn, Asheville, N. C.
Oct. 3—Georgia Textile Operating Executives fall meeting. Georgia Tech, Atlanta, Ga.
Oct. 7—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.
Oct. 7—Chemical-Finishing Conference, sponsored by National Cotton Council. Mayflower Hotel, Washington, D. C.
Oct. 8-9—N. C. Textile Manufacturers Association annual convention. Carolina Hotel, Pinehurst, N. C.
Oct. 8-10—AATCC annual convention. Sheraton-Park and Shoreham Hotels, Washington, D. C.
Oct. 10—Alabama Textile Operating Executives fall meeting. Langdon Hall, Auburn, Ala.
Oct. 17—Textile Education Foundation, Inc. annual meeting. A. French Textile School, Atlanta, Ga.
Nov. 4—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.
Dec. 2—AATT monthly meeting. Della Robbia Room, Hotel Vanderbilt, New York, N. Y.

Index to Advertisers

(*See previous or subsequent issues)

Allentown Bobbin Works, Inc. 65
Allied Chemical Corp.
National Aniline Div. 18
Semet-Solvay Petrochemical Div.
Solvay Process Div.
American Bemberg 9
American Enka Corp. 13
American Lava Corp. IV Cover
American Viscose Corp.
Andrews & Godrich 55
Apex Chemical Co., Inc. 12
Arkansas Co., Inc.
Arnold, Hoffman & Co. 15
Atlantic Rayon Co. 63
Atlas Electric Devices Co.

Barber-Colman Co.
Belle Chemical Co.
Borregaard Co., Inc., The
Butterworth & Sons Co., H. W.

Celanese Corp. of America, Yarn Div.
Ciba Company, Inc.
Chandler Machine Co.
Chemstrand Corp.
ChemTex, Inc.
Cocker Machine & Foundry Co.
Collins Supply and Equipment Co. 67
Columbia-Southern Chem. Corp. Corn Products Sales Co.
Courtaulds (Alabama), Inc.
Crompton & Knowles Corp.
Curlator Corp.

Dary Ring Traveler Co.
Davison Publishing Co. III Cover
Dayton Rubber Co. The
Denman Textile Rubber Co.
Dobson & Barlow, Ltd. 35
Dow Chemical Co., The
Draper Corporation II Cover
Duplan Corp.
Du Pont de Nemours & Co., E. I. Dyestuff Department
Textile Fiber Department 10, 11

Eastman Chem. Pro. Inc.
Emkay Chemical Co. 67
Engelhard Industries, Inc. Baker Platinum Div.

Fabulized, Inc.
Fancourt Co., W. F.
Fiske Bros. Refining Co.
Fletcher Works, Inc.
Foster Machine Co.
Franklin Process Co.

Gaston County Dyeing Machine Co.
Geigy Chemical Corp. 21
Globe Dye Works Co. 57
Guider Specialty Co., The

Hans J. Zimmer
Hart Products Corp. 25
Hartford Machines Screw Co.
Heany Industrial Ceramic Co. 61
Heresite & Chemical Co.
Herr Mfg. Co., Inc.
Hoffner Rayon Co.
Howard Bros. Mfg. Co.

Industrial Rayon Corp.
Interchemical Corp.
Iselin-Jefferson Financial Co. Inc.

Johnson Corp., The

Kenyon Piece Dyeworks, Inc. 50
Kidde Manufacturing Co. Inc. 33
Knitting Arts Exhibition
Koppers Company Inc.

Lambertville Ceramic & Mfg. Co. 8
Laurel Soap Mfg. Co. 6
Leatex Chemical Co. 65
Lindly & Co., Inc. 61
Loper Company, Ralph E. 67
Lubriplate Division

Malina Company 63
Marshall & Williams Corp.
Mayer's Grand Guide
Metlon Corp.
Miller Corp., Harry
Milton Machine Works, Inc.
Mitchell-Bissell Co. 31

National Drying Machinery Co. 23
National Ring Traveler Co.
National Starch Prod., Inc.
National Vulcanized Fibre Co. Lestershire Spool Div.
New Departure, Div. of Gen. Motors
New York & New Jersey Lubricant Co. 59
Nissen, S. T.
Nopco Chemical Co. 16

Olin Mathieson Chem. Co.
Onyx Oil & Chemical Co.
Osaka Consultants Co., Ltd.,

Page-Madden Co., Inc.
Penick & Ford, Ltd.
Perkins & Son, Inc., B. F. 14
Proctor & Schwartz, Inc.

Reynolds Metals Co.
Riordan Sales Corp., Ltd.
Roberts Company 5
Rhodia, Inc.

Saco-Lowell Shops
Scholler Bros.
Scott & Williams, Inc.
Scott Testers, Inc.
Simco Co., Inc. 67
Sonoco Products Co. 3
Southern Loom Development Co.
Southern Shuttle Div. Steel Heddle Mfg. Co.
Standard Chemical Products, Inc. 29
Stanley Works, The
Stauffer Chemical Company
Steel Heddle Mfg. Co.
Stein Hall
Synthetic Yarns, Div. D. W. Rich & Co., Inc.

Textile Banking Co.
Textile Machine Works 7
Traphagen School of Fashion
Trumeter Co.
Turbo Machine Co.

Union Carbide Chem. Co. Div. Union Carbide Corp. Chemical Dept. Textile Fibers Dept. 17
U. S. Ring Traveler Co.
U. S. Textile Machine Co.
Universal Winding Co.
Uster Corp.

Verona Dystuffs
Victor-Ring Traveler Co.

Walton & Lonsbury 53
Watson-Williams Mfg. Co.
Whitin Machine Works 38
Whitinsville Spinning Ring Co. 65

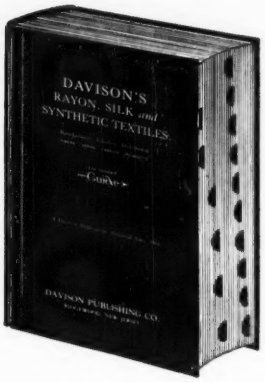
BUSINESS SERVICE

Bertner Yarn Co. 69
Chas. P. Raymond Service Inc. 69

1959 SIXTY-FOURTH ANNUAL EDITION

"The Red Book They All Use"

DAVISON'S RAYON, SILK and SYNTHETIC TEXTILES



Complete, detailed and accurate, it contains 3577 latest revised reports on all RAYON, SILK and SYNTHETIC TEXTILES Manufacturers, 652 Dyers and Finishers, and Allied Firms in the United States and Canada.

And Mills Classified by Products

ACETATE
ACRILAN
CASLEN
DACRON
DYNEL
FIBER GLASS
NYLON
ORLON
RAYON
SARAN
SILK
VICARA
VINYON

REVISED REPORTS ON:

12 Acetate Fibers and Yarn Manufacturers
53 Blended Fabrics Mills
169 Braid and Trimming Mills
892 Commission Merchants and Converters
72 Commission Throwsters
32 Commission Warpers and Winders
51 Commission Weavers
49 Covered Wire Manufacturers
652 Dyers, Finishers and Printers
92 Elastic Goods and Webbing Mills
39 Elastic Yarn and Rubber Thread Mfrs.
15 Embossing Plants
61 Factors
257 Fine Cotton Yarn Dealers
52 Garnetting Mills
22 Glass Cloth Manufacturers
50 Glass and Metallic Yarn Manufacturers
51 Grey Goods Brokers
453 Hosiery Mills (Full Fashioned)
389 Hosiery Mills (Seamless)
50 Jacquard Fabric Manufacturers
218 Knitted Cloth Mills
9 Knitted Glove Manufacturers
156 Knitted Sweater Mills
91 Knitted Underwear Manufacturers
90 Lace Manufacturers
53 Lacing and Line Mills
128 Metallic and Tinsel Yarn Dealers
118 Mills with Dye Houses
193 Miscellaneous Products
30 Necktie, Muffler and Scarf Mfrs.

THE BRAND NEW SIXTY FOURTH ANNUAL EDITION

•

An accurate, carefully revised Register of the trade. The 500 page fine plate paper Deluxe Office Edition, and the thin paper Handy Edition are handsomely bound in red cloth, gold stamped and fully thumb indexed.

Deluxe Office Edition $8.50
Handy Edition $6.50
F.O.B. Ridgewood

A valuable volume for Sales and Purchasing Departments. For salesmen's calls, mailings, phone selling, or for quickly obtaining competitive prices on equipment, supplies, services or anything used in, or made by the trade. Davison's will make and save you money!

LATEST REPORTS ON:

290 New York Offices of Mills
45 Plain Broad Silk Manufacturers
36 Plastic Yarn and Fabric Manufacturers
50 Plush and Velvet Mills
50 Raw Silk Importers, Agents and Dealers
39 Rayon, Synthetic Fiber and Yarn Mfrs.
239 Rayon and Synthetic Fabric Mfrs.
671 Rayon and Synthetic Yarn Dealers
166 Ribbon, Hat Band, Narrow Fabric Mfrs.
63 Sewing Yarn Manufacturers
278 Spun Rayon and Synthetic Dealers
134 Spun Silk Yarn Dealers and Mfrs.
43 Spun Synthetic Fabric Manufacturers
59 Spun Synthetic Yarn Manufacturers
42 Textile Designers
72 Thrown Silk and Synthetic Yarn Mfrs.
127 Thrown Silk and Synthetic Yarn Dlrs.
36 Tie Fabric Manufacturers
15 Top Makers Plants
115 Upholstery and Drapery Manufacturers
621 Waste Manufacturers and Dealers
33 Waterproofing Plants
203 Winding and Spooling Mills
61 Woven Label Mills
193 Yarn Brokers

OF SPECIAL IMPORTANCE

3577 Mfrs. Classified by Products Made
Alphabetical index to all Mills and Dyers.

Only A Limited Edition, So Order Your Copy Today!

DAVISON PUBLISHING COMPANY

"Standard Textile Publications Since 1866"

RIDGEWOOD GI 5-3135-6 NEW JERSEY

ALSIMAG® 193

ELECTRICALLY CONDUCTIVE THREAD GUIDES

(U. S. Patent No. 2,369,266)

Parts shown approximately actual size.

These hard, homogeneous guides are recommended by leading producers of synthetic yarns and by leading manufacturers of textile machinery. They help control static electricity and produce better quality yarn. Stock designs available for most equipment. Custom made at reasonable cost for special requirements.

These conductive ceramic guides are available in either satin or bright finish. Rods and tubes can be supplied in controlled finishes in a normal range of 5 to 70 micro-inches r. m. s. Other special finishes can be supplied when required. Finish specification sheet sent on request.

Samples available on standard designs. Experimental designs made promptly and at reasonable cost. Send prints or description.

A Subsidiary of Minnesota Mining and Manufacturing Company

AMERICAN LAVA CORPORATION

CHATTANOOGA 5, TENN.

58TH YEAR OF CERAMIC LEADERSHIP

SALES ENGINEERS: NEW ENGLAND: W. J. Geary, 27 Fairlawn St., Cranston, R. I., Williams 1-4177. NORTHEAST: J. S. Gosnell, 205 Walnut St., Livingston, N. J., 6-1260. SOUTHEAST: James W. Crisp, 409 Buncombe St., Apt. 1, Greenville, S. C., Cedar 9-8520. ALL OTHER AREAS: J. B. Shackett, W. M. Crittenden, Jr. or W. H. Cooper, American Lava Corp., Chattanooga 5, Tenn., Amherst 5-3411. REPRESENTATIVES: CANADA: Ian M. Haldane & Co., P. O. Box 54, London, Ont. ALL OTHER COUNTRIES: Minnesota Mining & Mfg. Co., International Div., 99 Park Ave., New York, N. Y.